NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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REYNOLDS & NOURSE, PROPRIETORS. OFFICE....QUINCY HALL. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH } ASSOCIATE EDITORS.

CALENDAR FOR SEPTEMBER.

"But brown comes the autumn, and sere grows the corn,
And the woods like a rainbow are dressed;
And but for the cock, and the noontide hour,
Old Time would be tempted to rest.
The humming-bee fans off a shower of gold,
From the mullein's long rod as it sways,
And dry grow the leaves which protecting enfold
The ears of the well-ripened MAIZE."

W. W. FOSDICK, OF N. Y.

SEPTEMBER, the first of the Autumnal Months, brings with it new aspects of the year, and calls up a new class of emotions in the heart, to those who love nature, and find pleasure in observing her ways. Now, the voices of nature have materially changed. The lark, the bob-o-link, the swallow, that so lately allured us into the fields, are no longer heard; the early morning song of the robin is sadly broken, and deficient in tone and compass, while the plaintive note of the blue-bird is only faintly heard at longer and longer intervals. So new classes of insects utter their voices day and night, and claim the season as their own. They are as earnest and active in their calling, as were the May-flies, the June-bugs, the beetles and borers and bugs of every hue and name.

So new aspects are presented by the vegetable kingdom. Where freshness, fulness and beauty lately prevailed in the flowers, the growing plants, and shrubs and trees, age and perfection have now marked them with the first touches of decay. "The woods and groves, those grandest and most striking among the general features of the country, towards the end of the month begin to put on their richest looks. The firs are gradually darkening towards their winter blackness; the oaks, the poplars, the horse-chestnuts, still retain their darkest summer green; the elms and beeches are changing to a bright yellow which produces, at a distance, the effect of patches of sunshine; and the sycamores are beginning, here and there, to assume a brilliant warmth of hue, almost amounting to scarlet." But nothing among us exceeds in beauty and richness, our noble forests, where the beech and birch, the white and red maple, the elm, the ash, the walnut and oak, with their endless variety of colors flashing in the sun, are magnificently studded with here and there a hemlock or pine or spruce towering above them all. Less conspicuous than these, but admirably filling the picture, are the dog-wood, the sassafras and blueberry, the alder, hazelnut, and berberry, all with their ever-changing colors and charms.

SEPTEMBER is a pleasant month in which to travel. The systematic farmer, whose well-matured plans up to this time have been completed, may now take his wife or daughter and make those social and profitable visits which really give to life a value never felt by those who have not toiled for their bread. In these visits—not made by the rail, however—he may gather much from the experience of others, and from an observation of their modes of management. Every visit cannot fail to add something valuable to the common stock of knowledge which he possesses; give him an idea of some new mode in plowing, planting, harvesting, disposing of stone, erecting fences or buildings; or in reclaiming, or draining, or composting. Each individual has a turn of mind, or taste, peculiar to himself, that leads him, perhaps, to investigate and settle some question for which others about him have felt no interest. So we must do for him; and this makes up the sum of human knowledge. Such visits will thus become *profitable*, as we have stated, as well as agreeable. They will afford subjects for pleasant family conversations of many a winter evening,

over the fragrant tea and the smoking barley cakes.

Many of the manipulations of the farmer for September, are such as are also applicable to, and were suggested in, August.

Seed Corn—should be selected in the field, and from early, thrifty stalks, which contain two or three ears. If this were faithfully attended to for several years, our corn might be much improved in earliness and fulness of the ears. Trace and hang it up in safe places.

Sowing Wheat.—Sufficient directions have recently been given in these columns on this point. It will be well to wash the wheat in strong brine before sowing; the salt will benefit it, and it will separate the light kernels and chaff, and perhaps some false seeds, from the wheat, which may then be removed. The earlier it is sown in September the better will be the prospect of a good crop.

Rye.—Early sowing of this crop, too, is important to success.

Fattening Animals.—No time should be lost now in this branch of husbandry. Whatever the animals are, feed plentifully, and make them perfectly comfortable, and they will gain much faster now than in cold weather. A variety of food is better than to confine them to a single article.

Harvesting.—After making trial in three ways, viz., topping the corn, cutting it up at the ground and shocking; and leaving it untouched until the leaves and stems were dead; we have come to the conclusion that the best way is—both in point of economy and convenience—to top the corn when the spindle and a little of the stem below it is dry, and leave the remainder in the field, no matter, if the weather is moderate, if until into November; the grain will not hurt. In topping the corn the grain is undoubtedly diminished; but the quality of the fodder will make up for this, and all the labor of harvesting the crop in this way is greatly more convenient and pleasant.

Potatoes—of late years—have required early harvesting.

Turnips,—ruta bagas, cabbages, may be left late, as they are not injured by light frosts.

Carrots should not be exposed to frosts.

Apples are better gathered a little late, but not exposed to heavy frosts.

A Seasonable Hint.—As the cold season is at hand, and economy in fuel is a subject of some importance, it may be well to mention a very simple way of shutting out the cold from our dwellings, and thereby adding much to the comfort of home. Those who are annoyed by the clatter of windows when the mercury is considerably below zero, and by a current of air sufficiently strong to turn a good sized wind-mill, can easily obtain relief by attending to the following directions. Procure a shilling's worth of *list* from the tailor, and a paper of *small tacks* from the hardware store. On the first pleasant day take out your windows, and tack a strip of list, of suitable thickness, on the outer edges; so that it will be entirely out of sight—return the sash to its place, and your job is done. By this simple process almost any room may be rendered delightfully warm, and the wife and children remarkably pleasant. Try it.—*Cleverland Free Democrat.*

Agriculture—*Its Essentials and Non-Essentials.* Including an Examination of the Properties of Guano, and other Manures. By H. N. Fryatt, of Belleville, N. J. T. S. Magagnos & Co., Publishers, N. Y."—This is a pamphlet of 60 large pages, attempting to show, briefly, what the earth and the atmosphere supply to plants, and what the cultivator himself must supply. The writer states that the atmosphere furnishes carbonic acid, ammonia, nitrogen and water, and that these serve in the gaseous form to sustain the plant after it has acquired leaves; the leaves absorbing these gases in company with water, decomposing and depositing the carbon and nitrogen in the seeds.

The soil—he says—in addition to its supplies from the air, contains within itself an inexhaustible supply of carbonic acid and ammonia, from the slow decay of its *humus* (woody fibre) and the countless myriads of insect and vegetable remains.

He condemns the ammonia theory, upon which Prof. Liebig started, but which he has in a great measure abandoned. He states that ammonia is supplied in all climates and situations, in greater excess than carbonic acid, according to the relative wants of vegetation. In short, that there is no need, whatever, of *purchasing* ammonia.

The three great essentials which he states must be supplied artificially, are,—the pulverization of the soil by plowing, spading, hoeing, &c.,—by *caustic lime* and *phosphate of lime*—bones.

We are not sufficiently versed in chemical lore, to declare whether all his statements and reasoning are right or wrong, and can only say that to us they appear plausible and well considered. At any rate, we have had more interest excited in reading the pamphlet, than in perusing anything of a kindred subject for some time. We shall test some of his assertions on our own farm, and if they prove correct, shall find the management of our crops less difficult and expensive than we have heretofore.

The Butterfly Plant.—The *National Intelligencer* says that a specimen of the singular and beautiful "butterfly plant" is now in bloom at the National green-house in Washington. The blossoms are very large and yellow, with reddish brown spots, and are moved to and fro with every breath of air, so as to resemble very much the gaudy insect from which it derives its name. The plant was brought from the Island of St. Thomas in the U. S. frigate Raritan.

AN AGRICULTURAL EXHIBITION IN ENGLAND.

Mr. Mechi, formerly a successful London merchant, now the most enterprising and liberal improver of Agriculture in Europe, annually invites a considerable number of persons interested in industrial progress to visit his farm just before his summer grain is ripe, and see what he is doing, and with what success. The *London Times* gives an account of his gathering this season, which we publish this morning in the hope that it will suggest and promote improvement in the conduct of our county fairs, now too generally mere shows of mammoth products without giving the assembled farmers any clear idea of what *they* have to do, if they would rival or exceed those productions. Mr. Mechi's meetings are, for practical purposes, worth a dozen of these barren displays, and we hope they will find imitators here. Twenty good farmers can walk over their own farms and explain their successful experiments where one can make a set speech; while one such explanation is worth twenty average speeches.—*N. Y. Tribune.*

Mr. Mechi's annual gathering at Tiptree is certainly one of the most agreeable events of the agricultural year. Though the circumstances which first gave a special interest to these meetings have happily passed away, they still continue highly attractive. In endeavoring to stimulate improvements in husbandry, the enterprising tradesman of Leadenball Street has created an occasion which every one who partakes of it enjoys. To his visitors from town, a reasonable excuse for escaping out of London during the dog-day heats is of course exceeding welcome. To those engaged in country pursuits, there is the feeling of curiosity to gratify as to a system of farm management much talked about, and departing in many respects from the routine of agricultural practice. To all, there is the pleasure of inspecting excellent crops, and observing how the oldest and most delightful of human occupations is progressing. Man, however much he may be modified by circumstances, never loses entirely his natural taste with reference to the cultivation of the soil. He may know nothing or next to nothing about it, but the treatment of mother earth, so that in due season she may yield her increase, always retains some interest for him. It is therefore little short of the supply of a public want at which Mr. Mechi now aims in his annual gathering. He began by inviting inspection in order by the force of example to give an impulse to improved cultivation. He still perseveres, and not without effect, in the same direction; but these meetings have acquired gradually an established character, looked forward to by numbers of people belonging to different spheres of life, coming from remote parts of the country, and attracted even from abroad.

Yesterday the 300 or 350 guests who visited Tiptree included peers and members of the House of Commons, civic dignitaries, men of science, heads of Government departments, engineers, writers on the science and practice of agriculture, a fair sprinkling of the clergy, implement-makers, Commissioners from foreign States, and a large number of farmers. It will thus be seen that this year's meeting surpassed in the variety of interests and intelligence composing it that of any former one, and Mr. Mechi may very fairly be congratulated on the usefulness of a career which, after having exposed him to much ignorant ridicule, is at length applauded and honored by such an assemblage. He has made failures, as what bold, adventurous man does not occasionally? He has gone to work rather expensively sometimes; nor is it difficult to point out defects even now in his farming. Take for example the old-fashioned plan of laying out the land in beds with furrow drains, thus rendering the application of machinery to its surface unnecessarily difficult. Still one is pretty sure to find all the novelties in agricultural improvement prominently displayed at Tiptree, and, if the experience of succeeding years sometimes detracts from the value of these as gauged by their sanguine promoter, he at least keeps moving in the right direction. Everybody now acknowledges that, whatever be the state of his balance-sheet, he has done an immense deal of good. As far as the public are concerned, that is the main point; for if a man's mistakes or pecuniary sacrifices benefit them, they are only the more bound to feel obliged to him.

But, turning from these general considerations to the details of yesterday's visit, let us endeavor to sketch the proceedings and the results which they present. According to his usual plan on these occasions, Mr. Mechi took his guests, after a slight refection, into his fields; and here, passing rapidly from point to point, he explained with a volubility and happiness of illustration peculiar to him everything that possessed interest, or upon which information was desired. Now, on the confines of his farm, he complacently contrasted his neighbor's wheat with a piece of his own adjoining it, stating why the one was better than the other, and the probable value of the advantage gained. Next he was standing before a fine field of oats, dilating upon the importance of thin sowing, answering vivaciously a sustained fusillade of questions, and promising himself a return of from 11 to 13 quarters per acre upon the crop. Then come the liquid manure distributor, with its hose scattering around it showers of refreshing aliment for plants. In five minutes Mr. Mechi had told his visitors all about it—how quickly the fertilizing products of his feeding sheds were on the land—in what quantity he could apply them—how digestible and direct the form in which they were presented—how wonderful the results in vegetation which they yielded; the mechanical and chemical details of the process were dashed off in a few sentences, the folly of not utilizing town manures in the same manner inculcated, and immediately afterward visiters and hosts were before one of Garrett's best portable threshing machines which the manufacturer proceeded to explain.

Mr. Mechi had, some time ago, tested at Tiptree, an American invention of this kind, and, nothing daunted by the present excellence of Garrett's, described its superior merits in some respects, urging the implement-makers to get rid, as much as possible, of the reciprocating action in their machines, to produce them lighter and cheaper, to work out the problem of steam cultivation, and generally to go ahead. In this manner he took his guests from field to field, stopping at one point to show the spring running 40,000 gallons a day, with which he liquifies his manure, at another to explain his mode of folding and feeding sheep; again to read a letter from Mr. Kennedy, the

Scotch agriculturist, recording what a surprising increase of food for stock he has obtained by the use of liquid manure. His grain and mangold crops excited general admiration, and on no former occasion has he shown anything like them. The wheats especially are magnificent, up-standing, even in growth, large-eared, and so high that some adventurers who started out to explore a field sown with "Payne's Defiance" were at once shut out of view by the waving and luxuriant mass of vegetation. In the management of his Italian rye-grass, Mr. Mechi's farming shows to the least advantage; but for this, as Mr. Caird very properly observed after dinner, the dry climate of the eastern counties is somewhat responsible. In making the round of his farm, Mr. Mechi delivered a succession of short but very amusing and vigorous peripatetic lectures on every important point connected with agriculture. His visitiors were delighted with the freshness, good humor, the volubility, and, in the main, the soundness of these expositions. They certainly have a stamp about them which nobody but Mechi could give, and his field preachings on agriculture are alone worth travelling a long distance to listen to. There was not time left before dinner to examine the feeding-sheds, the stock, and the general arrangement of the homestead, but enough had been seen to satisfy the keenest appetite for improved cultivation. Smart exercise in the fresh air had now brought a large proportion of the guests into a frame of body and mind thoroughly calculated to do justice to the ample provision which their host had prepared for them. In a spacious tent, erected for that purpose, they sat down to the number of nearly 300, and there the evening was most agreeably terminated in that round of toasts and speech-making which seems an indispensable condition of festive meetings in this country.

SQUIRRELS IN THE WOODS.

There are few things more pleasing than to lie upon the grass on a sunny day in Summer, and watch the squirrels in the trees above you. Peering up, you will espy, on one of the tree stems, a little brown monkeyfied-looking rat, with a sort of rabbit's head, and a foxy tail as long as its body, and curling over it, and *ecce* my lord squirrel! Down he comes, leaping from branch to branch, clawing, racing so fast, and now he reaches the turf and sits upon his hind legs, and looks this way and that, and listens. Do not move, or he is off; do not wink so much as as eyelid. "All right!" his merry brown eyes seem to ask. Yes, all right; for a nut drops from between his teeth into his fore paws, and giving his mighty consequential tail an extra curl, he makes ready for breakfast. That is another sight—the way in which a squirrel deals with a nut. First of all he shakes and rattles it, that he may be sure there is something inside; then he twirls it round and round in his paws, till he gets the narrow end uppermost, for he knows that the upper end of the shell is the thinnest; then he begins to grate and file till he has wormed his way through, getting noisier and noisier as the hole gets bigger; and then comes intervals of quiet, which means that his teeth are in the kernel, and that he is eating all within his reach; for a squirrel never has patience to wait till the kernel is clean out; he eats by installments in the shell, and trust him for getting the whole of it! Well, after the nut, he will perhaps pick the bones of an apple, if there be one within reach; and when he has had his fill he will wash his face with his paws, and his paws with his face, and, feeling quite clean and spruce and comfortable, he will roll over on the turf, making funny little noises and giving queer little jumps, and then away! up the next tree stem, clawing, leaping, swinging, so fast, so fast, —up and up, till your neck is out of joint with watching him, and he is lost among the leaves.

For the New England Farmer.

THE DROUGHT IN NORTHERN VERMONT.

Mr. Editor:—The severity of the drought in this vicinity, probably exceeds that of any other year within the recollection of the oldest inhabitants. Five years ago this summer was called the extraordinary dry season, and every summer since might very properly be termed a dry season, but the drought this year by far exceeds that of any other of the "dry seasons." Most of the country north of the Winooski river to Canada line has suffered more or less. In Lamoille County, not only the low land in the valleys, and the farms of dry and sandy soil, have suffered, but hill farms, and those that extend on to the sides of the mountains—farms that are naturally wet—and were not injured by former droughts, have been very much injured this summer.

The farmers have not cut probably more than half of the usual crop of hay, and the same may be said of oats and potatoes; and corn not much better, though there may be some fields that are tolerable. There are many fields of most all kinds of crops that are almost an entire failure. It seems as though the "barren clods" could never look green again. The pastures are "very short" and very much crisped up, as are also the meadows that have been mowed. Many of them look as if they had been bleached. If there should come sufficient rain, at this late hour, it would hardly benefit very much any kind of crop; even potatoes are considered "too far gone," to be much benefited, though it would help grass land and fall feed; as it is, stock find it rather close picking to get their living now.

The advance prices of farm produce in this vicinity, within a year or two, have encouraged farmers to take hold with new energy; but the failure of their crops this year, causes some to wear rather long faces. There has not been one *soaking rain* here this summer, nothing but a few slight showers.

I will mention one singular phenomenon that is happening to some of the potatoes in this vicinity; potatoes that were planted about the middle of May, by the middle of August, bore new ones, nearly half-grown, about as large as they would be this year, owing to the drought; but the curiosity is, the *new ones* have sprouted and come up. I saw yesterday (the 17th) some with sprouts a finger's-length long, as they had got out of the ground, though the old tops were green. Is it a freak of nature—an extra effort to "bring forth and multiply?" Or might it not be the drought stopped their growth, and after a shower the warm weather caused them to sprout and grow?

Morrisville, Vt., Aug. 18, 1854. J. M. C.

ANIMAL LIFE.

Incapable as water may seem to be of affording anything like solid nutriment, yet there are some tribes of animals that appear capable not only of subsisting upon this, but upon even the still less substantial diet,—air. Leeches and tadpoles, besides various kinds of fishes, (among which is the gold-fish,) will live upon water alone. Numerous experiments have been made by philosophers to test the truth of this matter beyond peradventure. Rondelet kept a silver-fish in pure water alone for three years, and at the end of that period it had grown as large as the glass globe that contained it. Several species of the carp kind, it is said, have a similar power; and even the pike, one of the most voracious of the finny tribes, will thrive upon water in a marble basin. All kinds of amphibious animals are particularly tenacious of life, and not only frogs and toads, but tortoises, lizards, and serpents, are well known to have existed for months, and even years, without other food than water, and, in some cases, only air. It is stated on good authority that a person once kept two horned-snakes in a glass jar for two years, without giving them anything. It was not observed that they slept in the winter season, and they cast their skins as usual about the 1st of April. Lizards have been found imbedded in chalk rocks, and toads have been discovered in wood, blocks of marble and other situations, where, to all appearance, they must have been entombed for many years. Snails and chameleons, it has been repeatedly asserted, will live upon air alone. It is also said that spiders will live on the same light diet, and that, though they will devour other food, they really do not need it to support life. Laterille confirms this statement by an experiment which he made with a spider, by sticking it to a cork, and precluding it from communication with anything else for four successive months; and, at the end of that time it was as lively as ever. A writer in the Philosophical Transactions states that he kept a beetle in a glass confinement for three years, without food. The larvæ of ants are not only supported on air, but actually grow in bulk. It would appear however from experiments made by M. Goldberry, 1786, that the usually received opinion that the chameleon feeds on air is a vulgar error. He subjected seven of them to this ordeal, and they all died save one, in three months and twenty-three days. So it would appear that they could survive, like many other animals, for a time upon the oxygen the atmosphere affords, but could not subsist upon it continuously. The instances we have cited, however, are sufficient to show that some animals require very little, and in some cases not any, of what we usually denominate food, to support existence. Numerous instances might be cited where persons have survived for many days without nutriment. A woman condemned to death, in the reign of Richard III., lived forty days without food or drink. A young lady, sixteen years of age, is mentioned in the *Edinburgh Medical Essays* for 1720, who was thrown into such a violent tetanus, or rigidity of the muscles, by the death of her father, that she was unable to swallow for fifty-four days, and when she came into the natural state again, she declared that she had no sense of hunger or thirst. A still more extraordinary account than this is related of a man who, upon recovering from an inflammatory fever, had such a dislike to food of all kinds, that for eighteen years he never tasted anything but water. All will recollect the case of the sleeping man from Rochester, who was exhibited in this city last summer, and who had not partaken of food for a long time. Cats have been known to live over two years without drinking.—*N. Y. Sunday Times.*

THE NIGHTS.

BY BARRY CORNWALL.

O, the summer night
Has a smile of light,
And she sits on a sapphire throne;
Whilst the sweet winds load her
With garlands of odor,
From the bud to the rose o'erblown.

But the autumn night
Has a piercing sight,
And a step both strong and free;
And a voice for wonder,
Like the wrath of the thunder,
When he shouts to the stormy sea.

And the winter night
Is all cold and white,
And she singeth a song of pain,
Till the wild bee hummeth,
And warm spring cometh,
When she dies in a dream of rain.

O, the night, the night,
'Tis a lovely sight,
Whatever the clime or time,
For sorrow then soareth,
And the lover outpoureth
His soul in a star-bright rhyme.

It bringeth sleep
To the forests deep,
The forest-bird to its nest;
To care, bright hours,
And dreams of flowers,
And that balm to the weary—rest!

Chambers' Journal.

For the New England Farmer.

ARE LIGHTNING RODS HUMBUGS?

A writer in a late number of the *Farmer*, in answer to inquiries from a correspondent, describes the manner in which lightning rods should be constructed, and says, buildings protected by such rods are never injured by lightning. The following item appears in a late N. Y. paper:—"The house of Mr. Cushing, of Genesee, same county, was struck by lightning during a storm on Thursday, June 22. What is singular in the case is, the house was protected by three silver pointed lightning rods, of most approved construction, which rods it seems afforded no protection." The editor of the *Farmer* says other cases similar are known. The destruction of life and property by lightning, is becoming very frequent, of late. Storms are more frequent—houses and barns are burned, cattle destroyed, human beings instantly killed. As a defence and protection from the storm, many are putting up rods to their buildings which we are assured will *certainly prevent* injury by lightning. *Are they humbugs?* One says the rods should pass through glass rings; the *Country Gentleman* says that is all nonsense, wooden supports are just as good. Will not some scientific writer, who is thoroughly acquainted with the

whole subject, and is not concerned in the manufacture or sale of lightning rods, give us, the thousands of farmers and others, who are now turning their attention to this subject and who wish to know the truth, the whole truth, and nothing but the truth, in relation to it—the needed information. Thousands of rods are now being put up, and if they are indeed no protection from the fluid, it should be known. O, for light! Will not some one put his light in the *Farmer*, where it will shine upon its thousands of delighted readers. S. G. B.

DEATH OF DISTINGUISHED AGRICULTURAL MEN.

The *Maine Farmer*, in speaking of the death of JOSIAH HOLBROOK, by drowning, says:—"He was the founder of the Lyceum system in New England. He was drowned in Black Water Creek, near Lynchburg, Va., on the 19th ult. It is supposed that he met his death by falling down a cliff in the creek, while searching for geological specimens. Mr. H. had written and published much on scientific subjects, and had achieved an extended reputation.

Thousands in the United States have reason to remember with gratitude his name, on account of his constant and unwearied efforts to simplify and render attractive the modes of teaching the young.

It was to him that common schools are indebted for the introduction of Apparatus and Blackboards, &c., &c., whereby many of the studies before obstruse and oftentimes incomprehensible to the young are rendered plain and even amusing to the child, and impress his mind so indelibly that he can never forget their teachings.

He was occasionally a correspondent of the *Maine Farmer*. His death is a public calamity."

The Rev. CHARLES FOX, of Grosse Isle, near Detroit, Mich., died of cholera on the 24th inst. He was English by birth, had for many years officiated worthily and acceptably as an Episcopal clergyman, but bought an islet in Detroit River and turned farmer some four years ago, and has since devoted himself to Agriculture and its improvement with enthusiasm and success. He established the *Farmer's Companion* some eighteen months ago, and last winter published the *American Text-Book of Agriculture*, which has been received with marked favor. Thus cut down in the very midst of a career of extensive usefulness, Michigan had few citizens whom she could so ill afford to spare as Charles Fox. It is not many days since we heard from him by letter in full health and activity: our next tidings of him came yesterday, and are here recorded.—*Tribune*.

A GOOD OLD SQUASH.—J. A. Ames, Esq., of Wilmington, sent one of the publishers this morning a *Custard Squash* of ample dimensions, fair, and goodly to behold, and of the crop of 1853! There is no evidence of decay in its outward appearance, and like him who sends it, is undoubtedly sound at heart.

STATE AGRICULTURAL SHOWS IN 1854.

We find the following list of State Shows arranged in chronological order in the *American Agriculturist*.

Illinois, at Springfield, Sept. 12—15.
Kentucky, Lexington, Sept. 12—16.
Lower Canada, Quebec, Sept. 12—16.
Vermont, Brattleboro', Sept. 13—15.
Ohio, Newark, Sept. 16—22.
Michigan, Detroit, Sept. 26—29.
Pennsylvania, Philadelphia, Sept. 27—29.
Missouri, Boonville, Oct. 2—6.
New York, New York, Oct. 3—6.
New Hampshire, at Keene, Oct. 3—6.
Maryland, at Baltimore, Oct. 3—6.
Indiana, Madison, Oct. 4—7.
Wisconsin, Watertown, Oct. 4—7.
Connecticut, New Haven, Oct. 10—13.
North Carolina, Raleigh, Oct. 17—20.
Tennessee, (East,) Knoxville, Oct. 18—19.
Georgia, Augusta, Oct. 23—26.
Iowa, Fairfield, Oct. 25.
National Cattle Show, Springfield, Ohio, Oct. 24—27.

The following is the list for the different Agricultural Societies in Massachusetts:

Essex, at Lawrence, Sept. 27 and 28.
Middlesex, Concord, Oct. 3 and 4.
Middlesex South, Framingham, Sept. 27 and 28.
Worcester, Worcester, Sept. 27 and 28.
Worcester West, Sept. 20.
Worcester North, Sept. 13.
Hampshire, Franklin and Hampden, Northampton, Oct. 12.
Hampshire, Amherst, Oct. 18 and 19.
Hampden, Springfield, Sept. 27 and 28.
Franklin, Greenfield, Oct. 4 and 5.
Berkshire, Pittsfield, Oct. 4 and 5.
Housatonic, Great Barrington, Sept. 27 and 28.
Norfolk, Dedham, Sept. 26 and 27.
Bristol, Taunton, Sept. 27 and 28.
Plymouth, Bridgewater, Oct. 4 and 5.
Barnstable, Barnstable, Oct. 11.

NEW HAMPSHIRE FAIRS.

The several Agricultural Fairs in New Hampshire, the ensuing season, will be held as follows:

Rockingham County, at Exeter, Sept. 13 and 14.
Grafton, at Lyme, Sept. 21 and 22.
Cheshire, at Keene, Sept. 26 and 27.
Merrimack, at Fisherville, Sept. 27 and 28.
Hillsboro', at Nashua, Sept. 28 and 29.
Sullivan, not determined.
State, at Keene, October 3 and 6.

CHARITY.—Every good act, says Mahomet, is charity. Your smiling in your brother's face is charity; an exhortation of your fellow-men to virtuous deeds is equal to alms-giving; your putting a wanderer in the right road is charity; your removing stones, and thorns, and other obstructions from the road is charity; your giving water to the thirsty is charity. A man's true wealth hereafter is the good he does in this world to his fellow-men. When he dies, people will say, "what property has he left behind him?" But the angels who examine him in the grave will ask, "what good deeds hast thou sent before thee?"

For the New England Farmer.

INSECTS DESTRUCTIVE TO PEACHES.

MR. EDITOR:—Dear Sir,—I send you by my brother a specimen of an insect which last year proved very destructive to my peaches, attacking them on the first softening spot, two or three days before the peach would otherwise ripen. They would eat large holes in the peaches, and if they were not gathered in time to prevent, the insect would leave nothing of the fruit attached but the skin and stone. I have frequently found a dozen or more on one peach, eating in the same orifice; if disturbed they would drop to the ground, and in their fall a few would fly away. You will perceive that it is a beetle, about the size of the little finger-nail, and woolly on the sides and belly. I have read of the *woolly* aphis on apple trees, but do not remember any description of it. Can you inform me of the name of the animal? It made sad havoc with my early peaches last year, but by killing what I could, and feeding the rest with sweetened water in wide-mouthed vials, I saved the majority of my later peaches, but not unscathed or untouched, as nearly all were bored or punctured by them.

This specimen is the first I have seen this season, and was at work upon a late apricot; my earlier apricots ripen in the middle of July, budded from an old seedling on my grounds, planted more than fifty years ago, by an old lady now living.

Our peaches in many places in this town are becoming red a month before their time, while the leaves scarcely show any change, except perhaps, not so clear and deep a green as usual. Does this forebode the yellows? And should we dig them up this fall, or wait another season for a clearer declaration of the disease?

ABORTION IN COWS.

In the August *Farmer* of 1853, p. 356, complaints are made of abortion in cows.

High feeding has a direct tendency to produce this; if a cow has done so once, meal should be kept from her for a month or two before the anticipated period of abortion, or during the greater portion of the period of gestation. Many a female of the human species has only avoided the same "mishap," by strict attention to diet.

Too high feeding, with no hard work, often produces an irritability not only of the nervous, but of the circulating system in its minutest subdivisions as spread over secreting surfaces. There is a greater tendency to this in the female system than in the male. The *mare* fed on oats and but little used will often become excessively snappish, or intensely cross. Withdraw her oats and she loses this irritability; or give her hard work and the effect will be the same. If in the cow this irritability of the secreting surfaces, induced by continued high feeding, is fed and fanned by meal and grain, a tendency to *inflammation* is produced in the uterus, which during gestation is the most irritable point in the system. Nature has no other way to relieve herself of this danger to the life of the mother, when the meal and grain continue to flow in, than to prevent inflammation of the womb and death, by evacuating the contents of the uterus. The increasing irritabilty of that organ, excites its repeated contractions, as at the full period, and abortion results and the mother is saved at the expense of the young. If the young is carried to maturity, it survives, and the mother dies of inflammation of the womb.

There are *other* causes of abortion. But this is one quite likely to produce it—too high feeding during the process of geslation; and by too high, I mean not too much in quantity, but too stimulating in kind, to the circulation.

Yours respectfully,
LEWIS S. HOPKINS, M. D.

Northampton, Aug. 15, 1854.

For the New England Farmer.

PEACH FAILURE.

MESSRS EDITORS:—The scarcity of peaches the present year has been supposed by some of us to be the result of the excessive cold weather between the 24th and 27th of March, or about the 7th of May, last; but the strongest evidence that the fatal cause was previous to that period is, that among a considerable number of our trees, not counted, only three have peaches upon them; those trees were located to the southeast of a range of hills extending from northeast to southwest, and the lower branches were covered by the drifting snow in the disastrous storm of Dec. 29, 1853, and remained covered through the excessive cold in January following; now those covered limbs are loaded with peaches, while there is not another to be seen upon a tree on all the rest of the premises, in any situation, and I believe not in the neighborhood. The above facts suggest an idea that may be useful to peach growers, viz.; if some kind of covering could be put on to those trees which produce the best fruit, that would protect them from the severe winter blasts, we might have a family supply, if not more, every year; as the peach is a prolific bearer naturally, and resists the inclemencies of an inhospitable clime to the last extremity of its tender nature, never yielding to the northern frosts and cold so long as its soft Persian vitality holds out. It may be understood that those drifts which covered the peach limbs were thawed away previous to the cold weather in March and May. S. BROWN.

Wilmington, Aug. 4, 1854.

For the New England Farmer.

MONTHLY FARMER FOR AUGUST.

I have been so unusually busy during the past month, that I have read only a portion of the *Farmer* for August. Yet I have read enough to find that the drought which is now blasting the fields and shrivelling the corn has not dried up the vigor or parched the spirit of the *Farmer*; and it is refreshing to turn a moment from the plodding and disheartening Practical, to the more buoyant and hopeful Theoretical,—from the heavens that are "brass" to the promise of the "latter rain."

Not possessing the ability which enables modern critics of "New Publications," to express opinions of productions they have not read, I must acknowledge that I have read some three or four articles in the August *Farmer* on the subject of cutting hay and grain early, that, it seems to me, from a careful examination of much of the hay I have seen housed this year, are entitled to at least a careful consideration; and that many of

us would do well to lay aside this number for re-perusal next June, even if we have to purchase it expressly for that purpose at the cost of a year's subscription.

In the reply of Mr. French to the inquiry of "J. D." as to "What kind of Farming" he would recommend, one little paragraph particularly arrested my attention, viz. "*I think we New Englanders are more extravagant in our dwellings and carriages and furniture, than any other people on earth.*" How much of the cream of our soil, in the shape of grain and cattle, leave us forever to pay for these "extravagances?" The present time too it seems to me is particularly fitting for the introduction of such thoughts. For several years farmers have enjoyed great prosperity—prices high and money plenty—and the inducements to indulgence in these things proportionally increased. Such "good times" often prove a "snare to the feet" of young farmers. Look out, boys, for a change of times, and for debts it will be hard to pay.

I should like to notice some of the many other good things in this number, which I have read, but I am too late in the day. I cannot however, pass over the "Successful Farming" by Mr. Gay, of New Hampshire, without saying that no kind of agricultural articles gives me more pleasure than such accounts. It would be well, I think, that the rigid economy which must lie at the foundation of such success, should be made more prominent, in these days of thoughtless improvidence. A READER.

Winchester, Aug., 1854.

For the New England Farmer.

ICE HOUSES.

MESSRS. EDITORS:—In last week's *Farmer* I noticed an article from LYSANDER B. HUNT, in which he states, that, having been at much expense in building an ice house, he finds it impossible to keep ice in it later than the 20th of July. I cannot conceive why a house built as he describes his to be, should fail, with proper care, of keeping ice the year round. It may be the case, and I think very likely is with his, that he endeavored to make it air tight, or as nearly so as possible. Now this should not be so, for it is a fact, that ice *cannot* be kept in a building nearly tight, without melting, half as long as it can where a moderate quantity of air is admitted, although care should be taken not to allow too much.

There are many ways, and for aught I know, equally good ways, for keeping ice. But allow me, Mr. Editor, to present for the consideration of your numerous readers, the plan of a building got up and built by myself and brother three years since, which I know, and will warrant, from experience, to keep ice the year round, and in point of cheapness and convenience I think cannot be beat,—as three thousand feet of lumber, twenty-five pounds of nails, and four or five days' work, amounting in all, to not more than twenty-five dollars, will build an ice house large enough for one family numbering less than twenty. I think much depends upon the situation of an ice house, and should consider it very desirable, if possible, to build it within an other house, for many reasons, which I will not tire your patience by giving, but at once give you a description of the one built by us, hoping, if it shall meet the approval of any of your readers, and they should think best to build like, or similar, to hear from them in the future through the columns of your valuable paper.

In the first place, dig out the dirt where you wish your house to stand, to the depth of two feet, or more, if exposed to frost greatly, and fill up with stone, then put your sills on level with the ground, put in strong sleepers, and cover this over with three inch plank. Commence upon these plank with scantling, sawed one and a half, by four inches for your wall, laying one upon the other and nailing them one to the other, inside of this lay up another tier, leaving a space of about four inches to be filled up with sawdust, or tan-bark; so continue till you have it as high as you wish for ice; then take plank and cover over, having them come to the outer edge of your inside wall; continue on as before with your walls, until as high as you like, and cover all over with plank two inches double; if under cover no roof will be necessary more than this. Have two doors, one where the ice is, and one above where you can put in butter, milk or anything you like to have kept cool. Bore these upper plank full of two inch holes, the ones above the ice; and the ones at the bottom of the house bore half inch holes through them once in about a foot all over the bottom, and spread two inches, or more of sawdust or tan-bark over the bottom before putting your ice in. Pack the ice as closely as possible, not having it come quite up to the top and edge of your house, and when full throw sawdust, or whatever you may use over the top, and also fill up between the ice and sides of the house, and I will venture to say you will not be out of ice by reason of melting by July 20th. JOSEPH BLAKE.

Ashfield, August 17.

HAVING A TRADE.

By all means have a trade. Do not go up and down in the world, and find nothing you can put your hand to. You may not always be as prosperous as you are now. Thank heaven we live in no land of primogeniture, hereditary succession. Each man is morally bound by labor. Have something you can turn your energies to when times pinch—have a trade, we repeat. Educate your hands; it will be an everlasting resource. We never knew a man, who, with a good trade, failed of getting a good living, and much more with right application. What though you are going to college, or into a profession? The case is not altered—you need it just as much. It will come in play every day in your life. Discipline of the hand should always go before that of the head. We never knew a college boy that wasn't better for a substantial trade. He always graduates with the highest honors. He is sure to be a scholar. The fact is, he knows how to work—to conquer. He but transfers himself from the shop to the study. Young man, decide at once to learn a trade, apply yourself with all your mind and heart, and be its master, and if you are not obliged to work at it, you have laid by so much, and such a kind of wealth can never be taken from you.

☞ This year is said by the oldest inhabitant so be the driest since the year 1826.

THE ROBIN.

The Robin is a well known bird and familiar to almost everybody. Innumerable thousands of them are seen in the lower parts of the whole Atlantic states, from New Hampshire to Carolina. They migrate, to avoid the deep snows, from north to south, and from west to east. The robin builds a large nest on an apple tree, plasters it with mud, and lines it with fine grass. When berries fail, they disperse themselves over the fields, and along the fences, in search of worms and other insects.

The robin is one of our earliest songsters; even in March, while snow yet dapples the fields, some few will mount a post or stake of the fence, and make short and frequent attempts at a song. His notes in spring, are universally known, and as universally beloved. They are, as it were, the prelude to the grand general concert that is about to burst upon us, from woods, fields and thickets, whitened with blossoms, and breathing fragrance. By the usual association of ideas, we therefore listen with more pleasure to these cheerful birds, than to many others of far superior powers, and much greater variety. Even his nest is held more sacred among schoolboys than that of some others; and while they will exult in plundering a jay's or catbird's, a general sentiment of respect prevails on the discovery of a robin's. He possesses much suavity of manners; and always seeks shelter for his young in summer, and subsistence for himself

in the extremes of winter near the habitations of man.

The robin goes by several names; some people calling him the red-bird; some the black-bird: and others the American field-fare. They inhabit the whole of North America, from Hudson's Bay to Nootka Sound and as far south as Georgia. They are too well known to require further description.—*Library of Natural History.*

For the New England Farmer.

PROFESSOR MAPES ON THE CULTURE OF CARROTS.

Mr. Editor:—Being on a visit to a friend, a few days since, I was shown a copy of the *Gardener's Magazine* for June, 1854. In hastily running my eye over the various articles, my attention was attracted to some remarks on the cultivation of carrots, written by Professor J. J. Mapes. As I am specially interested in the culture of that root, I was glad of an opportunity to know what so distinguished a writer on agriculture had to suggest, that was new. And truly, there were some ideas that struck me as quite new, and very remarkable, not to say absurd. For instance, he recommends that "Those who plant carrot and other slowly germinating seed early, should make use of assistant seeds to break the soil. Mix with the carrot long scarlet radish seed. It will come up in forty hours. The leaves of the radishes will shade the carrots, and prevent the sun from baking them; the radishes will mark the rows, and prevent very much, the growth of weeds. The long top roots of the radishes will bring up moisture, and thus assist in protecting the carrots."

Now at the risk of being thought deficient in reverence for scientific theorizers, I am compelled to believe this to be arrant nonsense. No one is more willing than myself to receive instruction from any one, learned or ignorant. But I cannot receive as truth everything which is put forth by those who have the reputation of learning. Give me, in my instructor, with the largest possible amount of learning, a habit of close, careful observation of facts, and I will bow with what reverence is in me to the teachings he may bestow. But if such instruction as the above comes from the learned Professors of the science of agriculture, who can wonder at the contempt in which "Book Farming" is held by the followers of the common sense experience of their fathers? I have had some little experience in the raising of carrots; and though I have no reason to suppose my seed unusually strong, they have shown themselves fully competent to "break the soil" alone, whether sown early or late, if they were supplied with sufficient moisture. I think the Professor must have a peculiar *breed* of radishes; and if they can be warranted to draw up more water than they want for their own selfish purposes, and generously bestow the surplus on the carrots; if they have the disposition and the power to make their shade benefit the carrots, and at the same time hinder

the growth of noxious weeds, then he may claim to have found the connecting link between the vegetable and animal kingdoms, nay, a link that connects the vegetable kingdom with rational Christian man. And he would do the world great service by distributing seeds of the wonderful plant.

In another part of the same article, the Professor says:—"Half an inch seems to be the greatest depth at which the carrot can be planted with certain success as to germinating." Some few years ago, (my agricultural experience has not been a long one) I was in the habit of sowing the seeds at a depth of about half an inch, as the Professor recommends. Passing through a neighbor's garden one day when he was sowing his seed, I noticed that he had made trenches not less than two inches deep, and put his seeds at the bottom. As I had furnished the seed, and felt interested in its reputation, I took the liberty to suggest that it was rather deep planting; but he covered them the full depth; and the result was, that his came up better than mine. Since then, I have not been afraid to deposit my seeds of all sorts at a depth that would insure sufficient moisture, and I verily believe, that more seeds fail from too shallow than from too deep planting. Especially in dry seasons there is danger that the shallow planted seeds will be kept too dry, to permit their germination. MINOT PRATT.

Concord, Mass., July 24, 1854.

WHEAT-GROWING IN MASSACHUSETTS.

In our calendar for August, last week, we incidentally mentioned the cultivation of wheat by our farmers, and we now continue the subject more in detail.

Some twenty-five years ago, it was well known that wheat could not be raised in Massachusetts, except in a few favored spots on Connecticut river. The reason was the land was too old; that wheat could only be raised profitably on new lands. Yet wheat has always been raised in the "old countries," in England, in Italy, in Germany, in Russia, in as broad a range of latitude as our whole country, from New Orleans to Pembina in 49°.

But since the establishment of Agricultural Societies and the increased circulation of farming newspapers, in consequence of which it is no longer held as treason, or even as a high misdemeanor, to suggest new hints or express new ideas upon the business of farming, it has been really suggested that wheat might be raised on our soil, and the experiment, bold as it may seem, has been tried. The result of the experiment is, we believe, that wheat, though not considered so certain or so profitable a crop as corn, may, notwithstanding, be raised to advantage in the State.

We believe it is a fact, and rather a singular one, of which we shall presently suggest the cause, that in no part of our extended country, with all its variation of climate and diversity of soil, have so good crops of wheat been raised as England. From Maine west to Iowa, and from Virginia north to Michigan, we think there has been no tract of country that has produced on the average as much wheat in quantity, as in some of the wheat counties in England, Kent for instance. In Mr. Colman's book on European Agriculture, though he says that in some statistical works 26 bushels have been put down as the average, and though there are persons who insist that it should be put lower, yet he could never find the farmer who would allow his own yield to be at the low rate. He says that under good cultivation he has rarely known it less than 32 bushels. He has found it 40,—and is informed on the very best authority that the yield is often from 56 to 64. Indeed, he reports instances greatly exceeding that, where it appeared that 37 and 40 bushels were severally raised by Mr. Barclay, M. P., and a Kentish farm laborer represented that about 35 or 40 bushels are raised there, as an average crop. We believe our best wheat crops have been in Michigan, and in some parts of Wisconsin, Iowa, and Northern Illinois. But the average in the best of these would not come up to the Kent county standard as we have stated it. In Virginia, it is greatly below it.

As we have such a variety of climate in the wheat-growing districts, our short-comings must be attributed to one of two causes, soil or seed. There are two principal requisites in soil, for wheat. According to the opinion of most farmers, the soil should be rather a stiff, tenacious, clayey soil, and not mellow, light, or loose. We think it should not be too rich also. In a mellow, light, and rich soil, it makes straw at the expense of the grain. But the main requisite in the soil for aliment of the plant, is phosphate of lime. To this condition or to the seed, or to both, the greater success in England, in wheat-growing, is to be attributed. England is a limestone country, and the farmers use bone manure, which furnishes the phosphate of lime, on their fields.—The most of the western wheat-growing lands are in a limestone country, but the soil is too light and mellow, favoring straw too much. So much for the soil. Now every farmer knows that there is a great difference in the measure of different kinds of wheat grown on a given number of stalks. In some kinds the kernel or berry is larger and heavier, and in some kinds, there are a greater number of kernels to an ear, than in other varieties. Let the best kind be selected, that which is of the best quality, and bearing the largest ears, the Kent county wheat, if it may be procured, or some other productive variety, and let it be sown in sufficient quantity, (our farmers do not seed so heavy as the English, our rule being 1¼ to 1½ bus. to the acre, the English 2 to 2½) on

a tenacious, stiff, soil, not too rich, only in good heart,—supplying to the ground those articles which make the constituents of the plant, and if fall sowing, on a northern declivity, early in September; and we cannot but think the product will be materially increased.

As to seed, the Siberian wheat is much approved in some of the wheat farms in Iowa. Others use what they call the Ohio white, a bald wheat with white husk. In other parts, the variety known as Club wheat, having the kernel set horizontally on short ears, is preferred, for the reason that it is there considered not liable to the rust, which has greatly shortened the crops of other varieties. The Winter Blue Stem is also raised with success, even on quite light lands, inclining to sand.

Mr. Colman names several varieties raised in England, and their product in certain fields, as follows:—

Essex Brown, rate 40 bushels	64 lbs.	per bushel.
Surry White, rate 36 bushels	64	" "
Brown, (called clover,) rate 40 bushels	63½	" "
Snow drop, White, rate 39 bushels	63	" "
Burwell Brown, rate 45 bushels	63	" "
Whittington White, rate 38 bushels	62	" "

W. Miles, Esq., raised 48 bus., 42 bus., 2 pecks, 47 bus., 35 bus., 3 pecks, and 49 bu.

P. Pusey, 37¾, 45½, 47½ bushels. Samples of the whole field. W. L. Kidd, M. D., of Armagh, Ireland, obtained at the rate of 50 bus. of 62 lbs. per acre, and there were larger crops in his neighborhood. The wheat was red wheat. Quality such as to command the highest price. The soil was a stiff clay recumbent on limestone.

Mr. Colman mentions other products in other counties coming up to these rates. In Gloucestershire, the product on several acres was from 46 to 49 bus. weight from 59 to 62½ lbs. In Worcestershire, in a field of 130 acres, the crop was nearly 47 bushels per acre.

In the Western States much of the wheat is under 60 lbs. It is considered the best weight at 60 lbs., and few crops go above that. We think no wheat has ever been grown in this country at 64 lbs.

The white wheats yield the greatest proportion of flour, the flint wheats the greatest proportion of gluten, which is the most nutritious part of wheat. The white is preferred for making the superfine flour and white extra-fine bread, though the bread is less nutritious than that containing more gluten. The southern wheat generally contains the most gluten, though the proportion of this element is much affected by the kind of fertilizers used. No crude animal manure should be applied directly to the wheat, but to the previous crop. If the land is mellow, the wheat should be rolled.

☞ The swamps of Provincetown are about to turned to good account as cranberry beds.

For the New England Farmer.

MANAGEMENT OF THE HORSE.

BY G. H. DADD, M. D., VETERINARY SURGEON.

MESSRS. EDITORS:—I notice in a recent number of your journal some very sensible remarks on "A Horse's Foot," in which the writer has introduced sufficient evidence—the result of his own experience—to prove the injurious effects resulting from allowing horses to stand on *soft beds*, impregnated with ammonia, &c.; and real glad am I to know that there is a disposition on the part of *horse-owners* to expose and correct, evils of this description. It is my firm belief—based on a knowledge of the physiology of the *foot*,—that soft bedding, containing the usual amount of filth, is in many cases the exciting cause, not only of *tenderness* and *contraction*, but from whence arises many muscular affections. I rejoice to find horse-owners exercising their *reason* in this department of stable management, because it is one step in the right direction, and will put a stop to those glaring absurdities which are constantly practised, just because they have the sanction of antiquity; or because neighbor *so-and-so*, recommends them. Reason teaches, that the health of the whole animal fabric is best promoted by cleanliness and ventilation (by which a pure atmosphere is insured,) and by food suitable in quantity and quality to the special wants of the animal.—Hence, what reason teaches, man should practice.

It is unreasonable, therefore, to suppose that a horse can be benefited by standing on a *soft bed*, composed in part of the defiling excrements of his own body, which are constantly decomposing and forming gaseous vapors unfit for respiration. If dirt and filth are innoxious, in what does the value of our sanitory regulations consist? Why do our city authorities spend so much money to purify the pestiferous cesspool and sewer, and to rid our streets of accumulating rubbish and filth? Let our citizens wallow knee deep in muck and revel shoulder deep in an atmosphere saturated with ammoniacal and carbonic acid gases—*as some horses are compelled to*—and death would run riot; our city would be converted into an immense charnel-house; a fit receptacle for a race of beings that would not adopt the means which reason and experience suggest for averting the calamity.

Horses that have no better care than that alluded to, are in close proximity with disease: that they are often found dead in their stalls from the effects of carbonized blood, I can testify, and many more would die, only, they are permitted to take a little of the breath of life, during the day; which, to some extent dilutes the poisonous gases with which their system has been saturated during the night, and thus, their life,—which under the best circumstances is a weary toil, is prolonged.

Without attempting to prove the general effects of impure air, and filth on the system of a horse located in a stall from *one to two and a half feet* deep (as your correspondent has it) of soft bedding; let us consider, in a brief manner, the local phenomena. Your readers are all aware that the combined action of heat and moisture tends to relax—enervates the tissues of the body, and if carried beyond a certain point, ends in decomposition.

Take, for example, a common poultice, apply it to a horse's foot, and renew it as soon as it becomes dry; in the course of two or three days, the hoof will separate from its matrix, the frog and heels soften, the tissues are in a state of relaxation, and if the poultice was continued, the hoof would separate from the sensible parts; if the foot is already diseased, the separation is accelerated. Warm water has the same effect; applied externally for any length of time, it relaxes and prostrates; applied internally, it relaxes and vomits. Hence the *soft*, which implies, *moist*, *hot* bedding,—tends to create morbid action in the feet, and whatever disease the horse may be predisposed to in those parts, will generally manifest itself. Some animals, however, escape the evils alluded to, owing to their insusceptibility; for disease of the foot cannot occur without a susceptibility to it, and the application of a cause. Soft bedding, cow dung, and other unmentionable filth, are often resorted to as remedies for contraction, but they are classed among the irrational barbarities of the past, with which they ought to have sunk into oblivion.

Veterinary science has discovered that if such articles possess any virtue, it is owing to the moisture they impart to the foot. Therefore, on the score of decency, and in view of relaxing the contracted foot according to the principles of reason, and modern science, we should avoid every kind of filth, and resort to pure water or wholesome poultice. Or, take off the shoes, wash the feet daily, and let the horse run to grass; so that he may bring the sole and frog in contact with the ground, and thus promote expansion of the heels. I endorse your correspondent's views as regards the *manufacture of tender feet* in both the young and aged, and it makes but little difference, whether they have the range of a filthy barn-yard, or are confined in a bedded stall; the effect is, tenderness of foot, and subsequent lameness; and the same, or a disposition to it, may be transmitted through the sexual congress to future offspring.

In view, therefore, of preventing diseased feet, strict attention must be paid to cleanliness; the stall floor should be composed of brick or plank having just sufficient declivity to conduct fluids into a gutter, running along the entrance to the stall, which should terminate exterior to the stable, so that the ammonia, in which the urine is abundant, is carried beyond the stable atmosphere. The bedding, which according to long custom is stowed under the crib, there acting as a sort of noxious smelling bottle to the horse's nostrils,—should be spread out in the open air, sorted; the refuse and excrement removed to a dung heap located as far from the stable as possible; for the common manure receptacle, under the stable floor, is one of the worst features of stable economy. The stable floor should be washed clean, as often as circumstances permit.

FREAK OF NATURE.—A friend gives us an account of a singular freak of nature which he has observed in his garden this summer. Some time ago, a sprout came up from the root of a rose-bush, and some two or three weeks since, when it had attained the height of 12 or 14 inches, a bud appeared directly on the top of the shoot.—Just as the bud began to open, the shoot pushed right up through its centre, and grew, while the flower was maturing two or three inches more.—A few days ago, he noticed that there were four buds on the bush, through the principal one of which the sprout is again making its way. The leaves of the former flower, though wilted, not having fallen off, he has thus a rose-bush which presents the singular sight of two flowers *strung on the stem.*

For the New England Farmer.

CHAPTER ON HUSBANDRY—No. 2.

MR. EDITOR:—Dear Sir—You kindly published my first chapter and pronounced it excellent advice; I take the liberty to go on, promising no harm or bad advice. The 9th closes my last—I begin with

10th. Keep a good depth of soil in the barn-yard; night air out of doors must be better for cows than the confined air of the leanto. Before turning out, start them around the yard, and all the droppings can be buried with a shovel in a few minutes, which keeps the yard clean, and saves the manure from drying waste.

11th. The sink-drain, washing suds and privy arrangements, can be so combined by drains to a common receptacle, as to warrant the manufacture of twenty-five loads of manure per annum; the value of these lost substances is hardly appreciated.

12th. Sand your leantos; it keeps the cattle clean, particularly the milch cows.

13th. Bed down your horses at night, and give them a *clean, hard floor* by day; this prepares their feet for hard roads.

14th. The mother of pigs is an eccentric animal; prior to her accouchment, she requires the kindest treatment—such as a little fashionable "*shampooing*" with the curry-comb or card, and other like tender caresses, which may keep her from crunching her young; but with all of their "mire and dirt" swinishness, they want a softer bed than a Chinaman for a night's lodging.

15th. *Gates* around your premises are more convenient than *bars;* yet many a rich farmer waits the slow operation of "taking down the bars," rather than reduce his *cash capital* in making a convenient gate. A good gate, well painted, hung on stone posts, is economy in the end.

16th. Char to a coal your posts, (cedar excepted, am unacquainted with this wood;) it would pay well, even with your hard wood stakes for fencing stuff.

17th. Place your season's fire-wood immediately under cover; the "grand wood hill" so ornamental to the farm-house, and so commendable to its owner, he may rest assured, that 15 or 20 per cent. of its value is saved by *seasoning* it under cover *as soon as split.*

18th. Use *glass* for glazing the broken panes; old trowsers, a bag of straw, sometimes a wide shingle—look, "The store has got some 7 by 9." But New England is getting *too proud* for these kinds of shows.

19th. Do not be afraid to cut off this or that twig in branching the limbs of your young orchard. The remaining wood gets all the sap, ex-

tra growth, and you are getting a fine-formed tree.

20th. Never prune when the limbs get so large as not to heal; *rot* begins where the limb is taken off, water runs and insects shelter there; the life of the tree depends upon a *sound exterior* from top to roots.

Mr. Editor, lest I should become tedious, I will end my chapter, promising my farming friends a few more verses, (with your permission) not inapplicable to their profession. Yours truly.

Brooklyn, N. Y., July 26, 1854. H. P.

For the New England Farmer.

LIGHTNING RODS.

Mr. Farmer:—One of your correspondents inquires about lightning conductors. I don't profess much knowledge upon the subject; but my writing may call forth the wisdom of others.

In the first place, I must beg leave to differ from you, Mr. Editor, in the admission, that buildings may have been injured by lightning, when rods were properly attached. (*a.*) I don't believe any such thing. The electric fluid is governed by laws as fixed and invariable as those which obtain in gravitation. You may say that we are ignorant of those laws. I admit that we know comparatively little of electricity, the variations of the needle the aurora light, the connexion of electricity with light and heat, its agency in the growth of vegetables and animals—and its agency in the operations of mind. These we firmly believe to exist; but, of their *modus operandi*, we are left still to conjecture.

It by no means follows that because we know not everything, we can know nothing with certainty. Certain phenomena have been so often observed to accompany certain conditions, as to warrant the inference that the electric fluid is governed by fixed laws.

Now to deny the security of lightning rods;—Mr. Editor, I wonder you did not receive some such spiritual manifestations as he who brought the lightning from the skies, did, when he experimented with the kite,—got smartly rapped over the knuckles.

That buildings have been injured, to which conductors have been attached, and that frequently, can't be denied. Steamboilers sometimes burst, though the capacity of iron, and the power of steam are known with certainty. But the more familiar people become with steam, the fewer, comparatively, are the accidents. So with electricity; these disasters result from want of knowledge, or carelessness.

It will be found in all cases, I think, unless the striking of Arador Douglas' house was an exception, for I believe that He who established the laws of nature can suspend them, that the injuries sustained are in consequence of some defect in the material, position, length, or mode of attachment of the conductor.

The First Baptist Church in Worcester was struck with lightning, some years ago, while the Sabbath school was in session, and several of the children were seriously injured. There was a conductor put up, as was supposed, in the most approved manner. The doubting were made skeptics. Lightning-rod stock became a drug in the market; multitudes lost their confidence in Ben Franklin; but some one more curious than the multitude made search for the cause of the disaster. It was easily explained, and the character of the philosopher vindicated. The house stands upon a solid rock; the conductor was properly attached, but terminated in solid, dry rock! A hole had been drilled some five feet into this rock, into which the rod descended, and there terminated. In a dry season, the rod was as completely isolated, as if it had terminated in a globe of glass. The fluid was taken from the clouds by the point, conducted along the rods, till finding no natural way of escape, it leaped through the walls of the building, upon the stove-pipe in the basement, along which it ran, to the no small annoyance of the children then assembled, and escaped by various conductors to the earth.

Now I believe that in all cases of failures to protect, it will be found, upon examination, that the defect was not in the laws of electricity, but that they were not observed.

Let me suggest a few things to be observed.

1st. *The conductor must extend to water.* Ordinarily, the earth near the surface, is sufficiently moist; but in a dry time, the very time to look out for thunder storms, the surface, and especially near the walls of a building becomes so dry as to be a perfect non-conductor. In such a case the conductor only serves to invite the fluid from the clouds to the destruction of the building. That portion of the rod which enters the earth, should be copper, or some composition not easily oxidised. Oxide of iron is but an imperfect conductor.

2d. The attachments should all be carefully cased with glass, or some other non-conductor. Let the conductor, in its descent, pass through half-a-dozen iron bolts, which entirely surround it, and it would be passing strange if much of the fluid should reach the ground.

3d. Let the rod ascend to sufficient height above the highest point of the building.

I will not enter upon a discussion of the comparative merits of the two methods—the Franklinian with one rod, or the modern with many. Suffice it to say, I should feel safe with one rod put up "according to the directions." And I have yet to see any proof, that a building which is bristled all over with silver-topped points, is any nearer "thunder proof," than the former.

The height of the point above the ridge, should be half the distance from the base to the remotest part of the ridge. On a barn of 40 feet, the rod rising in the centre, should ascend 10 feet. From a ridge of 80 feet the point must be elevated 20 feet.

On large buildings it is well to have two or more points connected with a common conductor. If there is a chimney rising above the ridge, unless the rod runs up beside it, its height must be taken into account, in fixing the elevation of the point.

So firmly do I believe in the efficacy of these rods, when rightly adjusted, that I wonder any should suffer a house or barn or any building containing valuables to remain long without one.

We live in an age of insurance and assurance companies. I know of no company, whose policy will guarantee so much protection for so small a premium.

Personalities.—In a thunder gust avoid a standing posture,—the chimney, the window, the

doorplace. If sitting, be so impolite as to keep your feet off the floor—but not on the top of the stove or on the mantel.

There is safety on a bed of feathers, of husks, of hair or straw; on a haymow, or on a pile of shavings if dry. If anxious to try an electrical experiment, stay out in the rain till your clothes are wet, then lean up against the body of a tree, in an open field—the taller the tree the better, or stand in the outer door-way with your hands raised to the lintel. R. B. H.

Springvale, Me., July, 1854.

REMARKS.—(*a.*) We are not aware that we have made such an "admission." We certainly agree in the general principles laid down by our correspondent, and should be sorry to lessen the confidence of our readers in the utility of lightning rods, *when properly put up.*

ANALYSIS OF SOILS.

Mr. S. W. Johnson, who is now engaged in chemical investigations under Liebig at Munich, has an able and elaborate article on this subject in the *Country Gentleman*, in which he sums up as follows:

I do not doubt that in very many cases a careful *investigation* of a soil—chemical, physical and historical—by a genuine and scientific farmer—one, familiar at once with science and practice—would afford safe and nearly accurate data for its proper treatment. But this would be always expensive, and in nine cases out of ten, would not *pay. Soil analysis, at the best, is a chance game; and where one wins, a hundred may lose.* It is the royal road to what, the farmer should reach by study, and a profound understanding of natural laws. By this is meant that it is no practicable road, not one which should be often trodden by the man of moderate means; although it may be entered upon by the wealthy and curious, who have no need to work in order to eat. A soil-analysis is always interesting, often valuable, rarely economical. It may amuse the amateur, and instruct the philosopher, but for the farmer its value is small, if he has to pay for it. It is only by the application of the general principles which may be developed from numerous analyses, that he can hope to be directly benefited.

But what shall the farmer do? Shall he grope in the dark? No! But let him beware of false lights which are now a-days hanging out in abundance. Let him beware of taking advice from two dangerous characters;—the conceited farmer who knows a little science, and the officious philosopher who knows a little farming.

It is far more difficult to warn against a course that is unsafe, than to point out one that will lead to desirable ends. Practice must accomplish many of her ends in her own ways for a long time to come. She should thank science for rebuking her errors, and should reject them as they become manifest. She should accept the light that science sheds upon her path, though the rays be those of a taper. Science should carry herself modestly, as befits her youth, and not talk too loudly on all occasions of old-fogyism *vs.* progress. She should remember her failings. The sister of 60 centuries, and she of tender years, should join hands, and walk harmoniously together towards the fields of promise that lie in the fruitful coming time.

ELEGANT BALLAD.

'Twas on a cliff, whose rocky base
Baffled the briny wave;
Whose cultured height, their verdant store
To many a tenant gave.

A mother, led by rustic cares,
Had wandered with her child;
Unweaned the babe—yet on the grass
He frolicked and he smiled.

With what delight the mother glowed
To mark the infant's joy;
How oft would pause amid her toil
To contemplate her boy.

Yet soon by other cares estranged,
Her thoughts the child forsook;
Careless he wantoned on the ground,
Nor caught his mother's look.

Cropped was each flower, that met his eye,
Till scrambling o'er the green,
He gained the cliff's unsheltered edge,
And pleased, surveyed the scene.

'Twas now the mother, from her toil,
Turned to behold her child:—
The urchin gone!—her cheeks were flushed
Her wandering eye was wild.

She saw him on the cliff's rude brink—
Now careless peeping o'er—
He turned, and to his mother smiled
Then sported as before.

Sunk was her voice—'twas vain to fly—
'Twas vain the brink to brave—
O Nature! it was thine alo
To prompt the means to save.

She tore her 'kerchie ffrom her breast,
And laid her bosom bare;
He saw, delighted—left the brink,
And sought to banquet there.

For the New England Farmer.

HOW TO USE MEADOW MUCK.

MR. EDITOR:—In the July number of the *Farmer*, under the head of "Meadow Muck and Lime," and over the signature of "Young Farmer," I find an important inquiry,—"How can I use an inexhaustible bed of decayed vegetation to best advantage? Can I make a compost by mixing lime with it, that will produce corn, rye and other crops?"

As I am under obligation to my brethren of the "farmer family," I should be guilty of a culpable neglect of duty, if I should not take an early opportunity to give my experience and judgment on the subject, and so you have it for what it is worth.

Put so much muck in the barn-yard, hog-pen and other proper places as will absorb the juices and then, instead of drawing 50 loads to a compost heap and adding thereto lime, ashes, or other materials, and expending much hard labor in mixing, reloading and spreading, draw in the autumn or winter mouths, 100 or more loads to the acre, spread it upon the land evenly as you draw it, that it may have the action of the frosts to pulverize it—then plow and plant first to potatoes—use plenty of ashes on the potatoes to prevent the rot, a handful on each hill where they first

come up and the same again after hoeing. The land will thus receive a permanent benefit. The soil, if sandy and loose, will better retain after applications from the barn-yard, and will produce wheat, corn, oats, or any crop suited to the climate.

I have four plantations of cranberries, put out this season, on four varieties of soils and one new variety of fruit. The results I design to communicate to the public through your valuable *New England Farmer*. WM. NOBLE.

Pittsfield, July 24, 1854.

WHEN SHOULD CROPS BE GATHERED.

Some science and some practical hints, which every farmer should understand and practice upon.

The prevailing opinion is, that grass, and especialy grain crops, should not be cut till ripe; or whatever may be the opinion, such is the general practice. This is an error, and one of no little consequence; and we offer some considerations, which, if understood, will, we trust, set this matter in a clear light. Let us first look at one or two lessons plainly told us by chemistry.

Wood, starch, sugar and gum are almost exactly alike in their composition. The same elements that put together in one form produce sugar, if arranged differently would make wood, and if araranged in still other methods, they would produce starch or gum. To illustrate; suppose four men should each have 100,000 bricks, 20,000 feet of lumber, including beams, boards, shingles, &c., three hundred pounds of nails, and 100 lbs. of unmixed paints of two or three different colors. Now suppose these four men, having precisely the same amount of the different materials or elements, set about putting up four structures, each having a different object in view. One might construct an elegant cottage dwelling, the second a church, the third a barn and the fourth a prison; and by mixing and applying the paints differently, each of these structures would differ from the other so much in form and color, that one might be supposed to be built of stone, another of brick a third of iron, and a fourth of wood, and they would be as unlike in form, color, and outward appearance, as starch, gum, sugar and wood. Either of these buildings might be taken down, and by simply *re-arranging the materials*, be changed to the form, shape, and color of one of the other buildings, and be made like it in every particular. Just so can a pound of wood be changed to a pound of sugar. We have often taken a board weighing a pound, and by a chemical process rearranged the elements, and change the same board to a pound of sugar. Just so a pound of starch, gum, or sugar, can be changed to a pound of wood. By artificial means this change is somewhat expensive, but in the natural laboratory of the cells and tubes of a plant, it is daily going on upon a large scale, although the elements are in themselves so small, that the change is not perceptible to the human vision.

We are not stating theories but absolute facts. While a stock of grain is unripe it contains but little woody fibre, and its pores or cells are filled with sugar, starch and gum. The presence of sugar is readily perceived by the sweet taste of soft kernels of corn and other grains, and it is also found abundantly in the sap of stalks. The starch and gum is not so readily perceived by the taste, though they are easily shown to be present. Now as the grain and stalks ripen a large portion of starch, gum and sugar is changed into woody fibres. If the natural growth of the plant be arrested by cutting it, this change is stopped, and it dries up, with the starch, gum and sugar, and there is comparatively little hard woody matter.

But we all know that the three substances first named are digestible, nourishing articles of food, while the fourth—woody fibres—is comparatively indigestible, and on this account little nourishing. Here, then, is a plain reason why all such grasses and grains, as are designed for food for animals, should be gathered before they are fully ripe, that is, while they contain a large amount of digestible matter. Wheat, for example, if cut eight or ten days before fully ripe, contains a large propotion of starch, with a thin skin, and will yield a large amount of flour; but when it is fully ripe it is covered with a thick, hard, woody skin, or bran, which has been formed out of a part of its starch, and it will then yield a much smaller proportion of flour. The same may be said of its sugar and gum. This reasoning applies equally to other grains as well as to straw, corn-stocks, grasses, &c.

Those portions of the grain which are to be used solely for reproducing the plant—and this is the *natural* design of all seeds—*may* be left to ripen naturally. The woody coating is designed as a protecting covering.

Having thus endeavored to state very briefly some of the *reasons* for *cutting grain early*—and it must be interesting to every one to understand these reasons—we will close this article with two or three rules which are not only sustained by theory but have been fully proved by careful practice and experiment.

1st. All grasses should be cut as soon as possible after flowering. Much more than is gained in weight after this is lost by the conversion of the nourishing substance into hard, woody matter.

2d. Corn, wheat, and all other grains designed for food, should be gathered eight or twelve days before fully ripe. A simple method of determining this, is to try the kernels with the thumb nail. Let the gathering commence immediately after the "milk" begins to harden, but while the kernel still yields to a gentle pressure of the nail.

An acre of wheat, that, if cut when fully ripe, would yield 800 lbs. of fine flour, will, if cut ten days earlier, yield from 850 to 1000 lbs. of flour of a better quality, while the straw will be much more valuable for feeding.

An acre of grass, which, when cut fully ripe, would yield 1000 lbs. nourishing digestible materials, and 2000 lbs. of woody matter, will, if cut 12 days earlier, yield from 1500 to 1800 lbs. of nourishing matter, and only 1200 to 1500 lbs. of woody materials.—*American Agriculturist.*

PLANTS POISONED.—Dr. Salisbury, of Albany, N. Y., recently communicated to the American Scientific Association some experiments on plants, which illustrate the analogy existing between animal and vegetable physiology. Dr. S. extracted the poison of a dead rattlesnake, a smal

portion of which he inserted in the plants by moistening with it the blade of a knife, with which he wounded a lilac, a horse-chesnut, a corn plant, and a sunflower. In sixty hours after the infliction of the wound, they began to manifest symtoms of poisoning, and in a few days all their leaves above the wound were dead. In about fifteen days they manifested convalescence, and nally all recoverd from the injury.

For the New England Farmer.

ESQ. SLIDEWELL, OR THE THEORETICAL FARMER.

Messrs Editors:—It is wonderful to contemplate the great variety of organizations bestowed on man, and all for useful purposes when directed by sound moral principles, and a sound judgment. The advantages of different organizations are readily seen, when we consider the almost endless variety of different requirements to be supplied among what we call civilized society, where multiplicity reigns instead of simplicity. Without different faculties and inclinations of mind among men, all would incline to pursue the same trade, occupation or manner of reasoning, all would be practical farmers, or all theoretical farmers, all philosophers or no philosophers at all.

It was lucky, for aught I know, that all were not theoretical farmers, considering the infirmities and imperfections of fallible human nature. Esq. Slidewell was a benevolent, kind-hearted neighbor, but he was not one of those whom "proud science never taught to stray." I have been at a loss a long time to understand how to appreciate the instructions of a theoretical farmer; some of the worst practical farmers I ever saw, were the greatest theorists. Esq. Slidewell went abroad and taught his neighbors, in a plausible theory all about farming, with such a deep degree of interest, that he forgot or neglected his own farm and affairs at home, and from pure benevolence or some other self-gratifying motive, used up his time for the public, when the public would have derived a greater benefit by his attending to his domestic concerns in a more economical and practical manner.

The Squire was an intimate acquaintance of mine, he inherited a valuable estate by way of relatives, he professed to be a farmer literally: in his younger days he was what was then called a schoolmaster, in his more mature years he occasionally represented his town in the State Legislature, and frequently served as one of the selectmen of the town; save these instances, he pretended to make farming his business for support. The Squire had a number of well-favored and fat-fleshed sons and daughters, who grew up with strong physical powers and digestive organs no way lacking when restoratives were required, or suffering by dyspepsia afterwards, every one being able to digest his meal. His farm was expansive enough for a "New England farmer," he kept cattle and other domestic animals like other farmers in his neighborhood.

The Squire's mind was stored with a good supply of plausible theories, which he was not backward in divulging to his neighbors for their special benefit; when he was abroad his instructions were so liberally dealt out, that time, which is valued by some people, escaped his notice, and in doing good to others he sadly neglected the opportunity of attending to the things which pertained to his own good. In the spring, the Squire was so much engaged in theoretical agriculture and politics that he forgot his own fields till a late hour, then he rallied his idle sons and some of his loafing neighbors and prepared his ground for seed in a hurried manner, leaving his fences in a bad state; by the time his seeds were deposited in his half-plowed land, his practical neighbors were weeding their fields and preparing for future operations.

The heads of the family and domestics appeared to live in harmony; there was no ringing of bells and rallying in the morning, but every one left the dormitory, after sleeping to satiety, which was not at an early hour; the cows waited for their milkers till hunger made them restless, and by the time they were milked and turned to pasture, his wakeful neighbors were progressing in their field labors. Some time before noon, the heads of the female department struggled from the embraces of Morpheus sufficiently to prepare breakfast, when all hands were summoned to the table well supplied with those "creature comforts" which minister to the gratification of good appetites and capacious receptacles to receive them. After an interesting "labor of love" for about an hour, and the party having been much engaged on the subject before them, the breakfast was finished to the satisfaction of all concerned. And then for the operations of the day.

After a heavy supply of food, no man feels the speed of the "winged winds," but the Squire's *help* got on the move before the sun arrived at a vertical position, and as some folks have all sorts of luck but good, the Squire's fences not having been repaired in the spring, and his cattle rather impatient after long fasting, thought they could do a better business than licking up short grass, and so they experimented upon the strength of the old, rotten fences, and finding them pregnable, entered the field where the Squire's labor had been disposed of, and at it they went, mowing and reaping the Squires growing crops by premature harvest, without remorse of conscience, or looking back to see who was coming. Instead of working in the field, the hands had to beat a cow retreat, and then do what ought to have been done in the spring, mend up the fences; thus the cattle, getting a liking to better fare, and learning the frailty of old fences, continued their vexatious intrusions through the season.

The Squire, dilatory in the extreme, followed on in the rear in all his operations; his fields were but partially hoed, his hay was cut late and badly cured, and finally the remnant of corn was harvested and put into a dilapidated, old leaky barn, to be husked late in the fall, where it remained to tempt the cattle to try the strength of "wooden walls" for something to appease gnawing hunger during the long nights in the fall of the year after the frost-bitten feed had been all devoured. It was reported, probably in truth, that the Squire's cattle made an assault upon the barn and gained admittance, without a ticket, and feasted upon the corn which they had previously tithed more severely than was allowable under the old Levitical law; and then mounted the pile and took lodgings to pass away the frosty nights of autumn.

Esq. Slidewell was quite as inattentive to the condition of his buildings, as to his farming operations; he made no repairs so long as he had a room in his house that would protect him from wind and storms; if the rain discommoded his family in one room, they retreated to another, where it rained less, and by the help of shingles and old hats they kept their windows in repair as long as there was glass enough left in the sashes to give sufficient light to distinguish day from night.

Thus time, that reconciles all events sooner or later, carried them along with but little grumbling so long as rich relatives one after another were called to a better world, and on their departure left them the means of supplying their tables bountifully from the stores of a good Providence. Thus the Squire, in his eventful life, instead of improving by experience, rather grew more negligent as he grew older, wasted or wore away, property which would have made any prudent man independent, while preaching theories to others, and neglecting the practical application of them to his own affairs. A repetition of the course described, "with but little variation," was annually pursued while he lived. SILAS BROWN.

Wilmington, 1854.

THE WHITE DAISY.

Of all the pests that afflict the farmer, none I deal with better deserves the appellation, *intolerable*, than the White Daisy. The seed is long, slender, brown, and the rapidity with which it spreads demands of the farmer the most untiring diligence in its extermination. The mowing of hay in winter, has seeded the road-sides of this town, and they now present, for miles, a bordering of daisies. From a few seed sown when laying land down to grass, we have whole acres now thickly in blossom.

The rapidity with which the daisy increases, may be seen from the following. I to-day pulled in my meadow a stool probably three years old, from which had grown 26 stalks, bearing fifty-one blossoms. I counted 300 seeds in one blossom. Another stool had sixty stalks, and at the above rate over one hundred blossoms. Putting the number of seeds per blossom at 200, we have for the last stool 20,000 seeds; and for the first 10,200. From a little plot of ground, about four feet by five, I pulled 650 stalks, giving at above rates, 1,000 blossoms, and 200,000 seeds.

Need more convincing proofs be added, to prove to the most negligent farmer the necessity of being wide awake in the work of eradicating these pests!—and yet we see farmers resting in quiet ease, year after year, while they are gaining a foothold, and increasing in a ratio of unexampled rapidity.

CURRANT WINE.

Here is a recipe for making currant wine, worth to any of our subscribers who have a bushel of carrants, at least two year's subscription to the Journal. We had an opportunity of tasting wine made after it, which was of such excellent quality, that we could not resist the temptation of publishing the recipe. Here it is; try it and report the results:

To one quart of ripe currant juice add three pounds of the very best white sugar, (the finer the quality the better,) and to this add as much water as will, with the juice and sugar, make a gallon. Put the mixture into a keg or demijohn, leaving it open for two weeks, or until the fermentation subsides; then cork it up tightly, and and let it remain quiet for five months, when it will be fit for use, and may be racked off into bottles.—*Pa. Farm Jour.*

A gentleman who has had much experience in making currarnt, raspberry, and grape wines, says the above recipe is a good one, but that clear wine cannot be made in a demijohn. It should be put in a keg or cask which it will just fill, so that as it ferments the scum will run off. When the fermentation ceases, cork it tightly and let it stand five or six months, and then draw it off for bottling by tapping near the bottom, being careful not to disturb the sediment.—EDS. RURAL.

FEEDING OF ANIMALS.

FORMS IN WHICH THE SOLID MATTERS OF THE TISSUES ESCAPE IN THE URINE.

The lungs throw off, in the form of gas or vapor, a large proportion of the matters which, after being taken into the stomach, have already served their purpose in the body. The kidneys remove the greater part of that which is derived from the destruction of the tissues. The solid excretions in man amount only to a fourteenth or an eighteenth of the whole food consumed.

In a state of health, the saline substances of the food escapes for the most part in the urine. The mineral matter contained in that part of the solid excretions which has undergone digestion, consists chiefly of earthy salts and of iron.

In man and in our domestic animals, the nitrogen of the food and tissues is also separated from the blood by the kidneys, and is found in the urine. It is chiefly in the form of a substance to which the name of urea is given. In birds, serpents and insects, it is separated in the form of uric acid. The urine voided by a healthy man in 24 hours, averages about 40 ounces, and contains about 150 grains of solid matter, which has served its purpose in the system. Of this solid matter, about 270 grains consist of urea, 8 of uric acid, and 170 of mineral or saline matter. The urine of the horse is richer in urea than that of the cow, and that of the cow than the urine of man. It is this urea which, during the fermentation or ripening of urine, becomes changed into ammonia.

The urea and uric acid discharged daily in the urine of a healthy man, contains about half an ounce of nitrogen—to furnish which requires 3 ounces of dry gluten, albumen, or flesh. If so large a proportion of that which is most valuable in food, and which has been derived from the decay of the tissues of the body, is contained in the urine, it ought to be an important object to the farmer to contrive some method of returning it without loss to the soil, that it may aid again in raising new vegetables as food for other animals.

GENERAL BALANCE OF FOOD AND EXCRETIONS IN MAN.

The general balance of the food taken into the human body and of the excretions of various kinds, has been thus represented by M. Barral:

Every 100 parts taken in, consist of—	
Food, solid and liquid, containing in all 75 per cent. of water	74.4
Oxygen taken in by the lungs,	25.6
	100
And are given off as—	
Water perspired by the lungs and skin,	34.8
Carbonic acid, do. do.,	30.2
Evacuations, solid and liquid,	34.5
Other losses,	0.5
	100

In general the substances perspired are to the evacuations as 2 to 1.

Of course, in an estimate of this kind, it is impossible accurately to put down the several quantities given off in the form of hair, nails, surface, skin—both of the outer and inner parts of the body—&c., &c., all of which are constantly shed or cut, and as constantly renewed. It is useful, however, in showing generally the relation which the oxygen inspired bears to the other food which the stomach receives, and the proportion of the work of excretion performed respectively by the perspiring organs, and by the organs of evacuation.

KIND OF FOOD REQUIRED BY ANIMALS AS INDICATED BY THE COMPOSITION OF THE BLOOD.

A knowledge of the kind of food required by animals may be gathered, as we have seen, from the composition of the several parts of the animal body, and a study of the functions they perform. The muscles must be sustained; therefore gluten, albumen, &c.—often popularity called muscular matter, must be eaten. The fat of the body must be renewed, and hence fat should be present in the food. And, as much carbon escapes from the lungs and skin, it seems natural, if not absolutely necessary, that starch or sugar should be introduced into the stomach with the view of supplying it. The mineral matter of the flesh, blood, and bones, must in like manner be provided.

The study of the excretions indicates, besides, the quantity of food of each kind which ought to be consumed. The quantity of carbon evolved in the form of carbonic acid, of nitrogen in the forms of urea and uric acid, and of saline matters in the urine and solid excretions of a healthy man, afford a means of approximating very nearly to the quantity of each which a sufficient food ought to contain; but the excretions do not alone tell us in what forms the carbon, nitrogen, and saline matters are best suited to the wants of the animal.

An examination of the blood gives us this latter information very clearly. The blood consists essentially, besides the water, of albumen, sugar, fat, and saline matter. The main purpose or object of the process of digestion is to form blood; for out of the blood are drawn the materials necessary to the wants of the bones, and of the various tissues and fluids of the body. Those forms of vegetable or animal matter, therefore, must be best adapted for food, which most resemble the ingredients of the blood which is to be produced from them. These will give the digestive organs least trouble, or will be most easily digested. Thus we arrive again at the conclusion that a healthy, nourishing, and easily digestible food ought to contain gluten or albumen, sugar or starch—which, in the stomach, readily changes into sugar—fat either of animal or vegetable origin, and saline or mineral matters of various kinds. Of course, if the stomach of the animal be in an unhealthy condition, the quality of the food may require to be adapted to its unnatural condition; but this does not affect our general conclusion.

IMPORTANCE OF A MIXED FOOD.

All these different modes of examining the question, therefore, indicate not only the advantage but the necessity of a mixed food to the healthy sustenance of the animal body. Hence the value of any vegetable production, considered as the *sole* food of an animal, cannot be accurately determined by the amount it may contain of any *one* of those substances, *all* of which together are necessary to build up the growing body of the young animal, and to repair the natural waste of such as have attained to their fullest size.

Hence the failure of the attempts that have been made to support the lives of animals by feeding them upon pure starch or sugar alone. These substances would supply the carbon perspired by the lungs and the skin; but all the natural waste of nitrogen, of saline matter, of earthy phosphates, and probably also of fat, must have been withdrawn from the existing solids and fluids of their living bodies. The animals, in consequence, pined away, became meagre, and sooner or later died.

So some have expressed surprise that animals have refused to thrive—have ultimately died, when fed upon animal jelly or gelatine alone, nourishing though that substance, *as part of the food*, undoubtedly is. When given in sufficient quantity, gelatine might indeed supply carbon enough for respiration, with a great waste of nitrogen, but it is deficient in the saline ingredients which a naturally nourishing food contains.

Even on the natural mixture of starch and gluten which exists in fine wheaten bread, dogs have been unable to live beyond 50 days, though others fed on household bread, containing a portion of the bran—in which earthy matter more largely resides—continued to thrive long after. It is immaterial whether the general quantity of the *whole* food be reduced too low, or whether *one* of its necessary ingredients only be too much diminished or entirely withdrawn. In either case the effect will be the same—the animal will become weak, will dwindle away, and will sooner or later die.

The skill of the feeder may often be applied with important economical effects to the proper selection and mixture of the food he gives his animals generally, and at various stages of their growth.

It has been found by experiment, for example, that food which when given alone, does not fatten, acquires that property in a high degree when mixed with some fatty substance, and that those which are the richest in the muscle-forming ingredients produce a comparatively small effect, unless they contain also, or are mixed with, a considerable proportion of fatty matter. Hence the reason why a stone of linseed has been found by some to go as far as two stones of linseed cake, and why the Rutlandshire farmers find a sprinkling of linseed oil upon the hay to be a cheap, wholesome, and fattening addition to the food of their cattle and horses.

A Merino sheep of 55 lbs. contains about 20 lbs. of fat, but four-fifths of any subsequent addition consists of tallow, hence we may infer that oily food should be profitable in fattening sheep. To pigs the same remark applies; and, in prac-

tice, fat of any kind, animal or vegetable, is found to be a profitable addition to the food of these animals when they are to be fattened off.—*Johnston's Ag. Chmistry and Geology.*

For the New England Farmer.

TIME FOR BUDDING.

Mr. Editor:—The nurseryman meets with but few; if any, more difficult tasks than that of deciding the best time for budding his young trees. As no two seasons are alike, no particular time can be established for performing the operation; but, if the seasons were alike, the locations of nurseries, and their treatment, are so various, that while some would have advanced to a proper stage of growth several weeks before the stated time, others would be as many weeks after; it therefore depends, almost entirely, upon the judgment of the cultivator, as to the best time to commence budding.

Experience has proved to me that there is a certain stage of growth which is most preferable to all others for setting buds; many suppose that any time will do, if the trees are in a thriving condition. It is true, buds can be set whenever the bark will peel, but it is equally true, that there are but a few days that they can be budded to advantage; if set at the proper time, a skilful operator will make 75 per cent. live. In your remarks upon the subject, you suggest whether it would not be better to set buds as early as the bark will readily peel.

Are we to understand by this, that you would recommend spring budding? for the bark will very freely peel soon after the leaves are formed in the spring. If so, from your opinion I beg most respectfully to differ. (*a.*) Trees budded early, so far as my experience teaches, do not take so well as those budded later in the season. I have invariably found that those trees which have ceased to grow ten or twelve days after the buds had been set, have done better than those budded at any other time. Trees intended for budding should be kept in a good state of cultivation, and well mulched previous to the commencement of the dry weather in July, thus securing a good August growth. For the past ten years I have budded apple trees from the 7th to the 20th of August. He who fails to make his young trees grow in August, will, in my opinion, never make a successful nurseryman. (*b.*)

The strings on trees budded at the right time should not be removed until the following spring, thus leaving a protection for buds during the winter. I have found nothing better for strings than cotton wicking; the cost is but 25 cts. per thousand buds.

E. Hersey.

Hingham, July, 1854.

Remarks.—(*a.*) We did not mean spring budding—though budding at that season is sometimes crowned with success.

(*b.*) Our correspondent says:—"I have invariably found that those trees which have ceased to grow ten or twelve days after the buds had been set, have done better than those budded at any other time. And then he who fails to make his trees grow in August will never make a successful nurseryman." Does he mean that they shall grow ten or twelve days and then cease? We do not fully comprehend him.

WEEDS! WEEDS!!

We observe in passing through the country, the pastures of poor farmers crowded with armies—not of Turks and Russians—but of mullets, horse thistles and other invaders, which not only devour the strength of the land, and pay nothing in return, but continually say, like impertinent tell-tales, to every passing traveller, in the language of a celebrated writer, "Behold the field of the slothful, and the field of the man void of understanding! For lo, it is all grown over with burdocks, and Johnswort has covered the face thereof."

We take it for granted that no reader of this journal ever voluntarily allows weeds to grow on his premises, but some, however, obtain stealthy possession—and if some of our good friends of this class would go over their grounds, make a careful observation, and estimate the amount of vegetable growth thus feeding on the strength of their soil, which might as well be wheat, corn and ruta bagas, they would certainly be surprised at the amount. It would be a curious question in philosophy, why so many will thus allow a yearly waste from weeds of some fifty or a hundred dollars, with all quietness and submission, who would be ready in a moment to bring an action at law against a neighbor, whose cattle and swine should devour a fifth part of that quantity.

If we could only have all the value of the riches of the country at large thus wasted, placed in our hands for endowing agricultural schools, there would be no necessity whatever of applying to national and state legislatures for help.

Now is the very point of time for thinking this matter over, with a determination to act efficiently in the premises; and if any one is too busy or "*drove*" to attend to it, he has certainly undertaken the care of too much land, or else is pursuing a system which may emphatically be compared to "saving at the tap and wasting at the bung." No one is ever too busy to turn his neighbor's cattle out of his cornfield—and he ought to pursue the same system towards other intruders. We have known farms to be affected in market value from five to ten dollars per acre, by being kept neat and clean in one instance, and foul, weedy and repulsive in the other.—*Country Gentleman.*

Bristol County Agricultural Society.—The Bristol County Agricultural Society has issued a most attractive bill of premiums for their cattle Show the present year, which is to take place on the 27th and 28th of September. The New Bedford Horticultural Society will unite its exhibition with the other show. The officers of the Bristol County Society are—

J. H. W. Page, of New Bedford, *President.*

John Daggett, of Attleboro', } *Vice*
Nathan Durfee, of Fall River, } *Presidents.*

L. T. Talbott, of Taunton, *Secretary.*

Samuel A. Dean, *Treasurer.*

FARMING A HUNDRED YEARS AGO.

Though farming is one of the oldest employments in which men have ever been engaged, the improvements in it have been very slowly introduced. The approaches to perfection which have been attained in its operations have been made by short steps, and those taken at long intervals. It is indeed a great art. Were all that is known of its varied progresses blotted out of memory today, it is doubtful if, with all our modern appliances, the study of a century would suffice to give it its present position. It is only by looking back upon the past that we are able to note its improvements; for grown sciences and well developed art are old oaks,—they seem to stand from year to year without change, adding nothing to the diameter of their trunks, and their branches maintaining only their old size. A score of years make their mark through; and when the tree is cut down, each year shows its own ring.

Farmers in this country a hundred years ago could hardly be expected to pride themselves on the good condition of their farms, the excellence of their stock, or the yield of their crops. The stumps of the first forests stood in their wheat fields, and were not rotted in their oldest pasture grounds. The Indians were harrassing them on the frontier, and political questions of the gravest import would have disturbed their problems of field culture, had any such problems been presented. And yet our Yankee farmers of the morn of the eighteenth century were nearly the counterpart of the farmers of England. In neither country had much notion of improvement taken root. Ambitious men were not in their ranks, and to do things as they had been done was esteemed the perfection of farming.

The good farmer lived just where his father lived, in the same old, unpainted house. He planted just as many acres of corn as his father planted. He made the hills just four feet apart, put into each hill a crab or two, dropped in four kernels of corn, and made each hill a foot or more above the surface; planted beans in the corn-field but not pumpkins; for hard as it is to believe, the time was when pumpkins were not known even in Connecticut. He sowed just as many acres of rye as his father did, and in the same lot. He plowed with just as many yoke of oxen, and with the same heavy, unweildy plow. "Cast steel" was just then (1750) made for the first, but it was a Sheffield secret. And the best spade, hoe, shovel or plow-share, he could find, was either of cast iron and exceedingly brittle, or of such soft iron that a few days' work with it made it as dull as the next *duller* thing than a hoe. His oxen were small, ungainly, feeble things, compared with the fat fellows who now move off with the heaviest loads, as if they enjoyed a ton or two to ballast them. Very poor mutton it must have been that Oliver Goldsmith invited Samuel Johnson to dine on; and the roast beef that Hogarth was always painting, we suspect was a thin, lean article, after all. Farmers then did not spend their earnings studying how to make the most manure, though how how to get rid of its accumulation in their yards troubled them not a little. When the old barn fell to pieces, you may be sure it was rebuilt upon a new site. It was deemed a good opportunity to be rid of a nuisance. Nobody went sea-weeding then, and there were no seines hauling along the shore full of rich shoals of glittering fish. Compost was a thing unknown, and a lecture on the subject would have been as amusing as a prophesy that their grand-children would sail round Cape Horn, and bring home from the Peruvian Islands something to make their corn and beans yield more abundantly. The ashes that gathered in their great fire-places went to swell the ash-heap by the back-door, and the pyramid of clam-shells along-side rivalled it in size and deformity. The cattle were left to ramble in the woods through the Fall and Spring, and went uncovered through the winter to toughen them. The pigs rooted at liberty on the village green, unless they broke into the parson's garden, when rings were put into their snouts to check their mischievous propensities. When they were gathered into pens, the pens were by the roadside, where every boy that went to school had a pull at their ears, and the fragrance of their cleanly quarters regaled all passers-by. Such a thing as rotation of crops had not been proposed. Where he planted corn last year when the walnut leaves were just the size of a squirrel's ear, he planted it again this year. Where he sowed rye then "in the old of the moon," he sowed it again this year, and the same corner was kept for the potato-patch years together. When wheat would no longer grow in the exhausted field, he left it for grass to come in. And when the old pasture grounds utterly failed, they were left for briars, bushes, and such forest trees as could, to struggle up. Sowing pine seeds, or planting a forest, would have seemed simply ridiculous. There were a few orchards cultivated, but they produced neither choice nor luscious fruit. Their principal object was the cider-barrel, for which a very poor species of fruit answered very well. When the old fields declined to surrender their profits enough to pay for their cultivation, the more enterprising pulled up stake, and pushed out into new settlements. It was a great undertaking, but some of them penetrated into the Far West, even as far as the banks of the Hudson. But the more ambitious sons of a family eagerly embraced any opportunity that offered, to adopt the life of a mechanic, sailor, or particularly that of a tradesman—employments that were honorable because they were more profitable; and, by following them, they sooner attained to independence.

It was slow work for Agriculture, creeping out from so debased a condition. There were learned Englishmen laboring, however, for its improvement and their labors were early appreciated here. The writings of Sir John Sinclair and Young, and the experiments of Bakewell, gendered a new interest in the subject, and societies for the promotion of agricultural science began to be formed on both sides of the ocean. A clergyman, Rev. Jared Eliot, published the results of his experiments at farming in Connecticut, as early as 1747, with marked advantage to the people. There was a Philadelphia Society for the promotion of agriculfure established in 1785. and one in Massachusetts in 1692, Premiums and exhibitions soon came in vogue. The embargo of 1807, which blighted so severely the commerce of the Eastern towns, gave farming a new impulse. And though since then thousands of obstacles have interposed, and fields which then first began to develop their fertility and strength have since been

built over with manufacturing establishments, and the old farms are contracted into mere door-yards and gardens, Agriculture has grown apace until it needs a year-book of goodly size to record its improvements, and a bulky census to expose its wealth.—*New York Times.*

VETERINARY HOMŒOPATHY.

Mr. Moore:—I take the liberty of forwarding to you by mail, a small volume entitled "*Veterinary Homœopathy*," by Rush, published in Philadelphia.

The *rational* treatment of Domestic Animals is gaining ground daily, and fast superseding the old and barbarous system. I have tried it to some extent, and find it acts more promptly on animals than on persons, for the simple reason that their food is not so artificial, and besides, they have no imagination to draw upon. I have treated successfully various cases of acute colic, in horses, "hollow horn" in cows, catarrh or influenza in horses, even when it was supposed to be glanders; also the various stages of distemper, and other ailments too numerous to mention. All roweling, bleeding, drenching, and kindred heroic remedies can be dispensed with.

Though not a "graduate" nor a "practitioner," I have some small medical knowledge—and great desire to lessen the suffering of both man and beast; hence I trouble you in this way, and would bespeak for this beautiful system your candid consideration. I have received a medical education at the Homœo. Med. College in Philadelphia, but attended more as an amateur, than with a view of going into, and becoming a general practitioner,—for the reason, that I had too much other business on my hands, and was too old a man to undergo the fatigue of a country practice. I am well satisfied that the general introduction of this systeem among farmers, will be the means of saving the lives of much valuable stock, and eradicate many hereditary taints to which they are heir.—*Wool Grower.*

For the New England Farmer.

TRAINING YOUTH TO A WRONG OCCUPATION.

Mr. Editor:—Though but a youth myself, still I consider I have a right to represent the rights and wrongs of youth as a class. There are many parents who persist in training their children to a pursuit which they have no inclination nor taste to pursue. Most farmers think their sons must follow in their track, whether they have a taste for other pursuits or not. Perhaps a boy has a tact for trading, or he may be very ingenious, and would like to be a mechanic, but *no*, says the parent, while you are under my control, you must do my bidding. Such parent's are not looking out for their children's future welfare, but only for their own present interest. If parents would consult their children more, and give them the pursuit they naturally tend to, it would be for their good, and for those they give it to. For how can a man engage in a particular pursuit and have it profitable, unless his mind and inclination are also thrown in with it?

Lynnfield, 1854. A Young Farmer.

THE FARMER'S SONG.

BY WILSON FLAGG.

A late dismal story our ears hath assailed,
That your banks and your merchants and brokers had failed;
But ne'er in the wealth of our country despair,
While the weather and season will smile on our care.
From the *banks* of our rivers good *specie* we raise,
Fine silver in wheat, and bright gold in our maize.

In the *banks* of the earth we deposit our wealth,
And reap, with the interest, vigor and health;
Kind Nature's our *banker*, and all our wide fields
Are the mart that the profits of industry yields.
Though our traders have failed, we are not so forlorn,—
Bring the notes of your banks, and we'll pay them in corn.

We learn that your bankers have issued their notes,
Till like leaves in the autumn, their paper coin floats;
They promise to pay "on demand" you'll peruse,
Yet the gold for their paper they often refuse.
Trade with us, and you'll neither be shaven nor shorn;—
The farmers ne'er give you the husks for the corn.

We *speculate* only in weather and soil;
Our gains are the well-earned reward of our toil;
Though moderate, still they are solid and sure,
And while we have vigor, our wealth will endure.
Our *banks*, where we safely deposit in Spring,
A rich *dividend* in the Autumn will bring.

What a treasure of wealth will our pastures unfold;
Our woodlands are surely far better than gold;
And all your bright silver no profit will yield,
Except as 'twill purchase the fruits of the field!
And unless your bank money a change soon receives,
'Twill ere long be too worthless to purchase our leaves.

Yet of our own calling 'tis idle to boast;
And now both our merchants and bankers we'll toast;—
Here's to banking and commerce and all honest trade;
Our wealth would all perish without their just aid.
And while both to justice and truth they are sworn,
Bring the notes of your banks and we'll pay them in corn.

A BEAUTIFUL PICTURE.

The man who stands upon his own soil, who feels that by the laws of the land in which he lives—by the laws of civilized nations—he is the rightful and exclusive owner of the land which he tills, is by the constitution of our nature under a wholesome influence not easily imbibed from any other source. He feels—other things being equal—more strongly than another, the character of a man as Lord of an inanimate world. Of this great and wonderful sphere, which, fashioned by the hand of God, and upheld by his power, is rolling through the heavens, a part of his—his from the centre sky. It is the space on which the generation before moved in its round of duties, and he feels himself connected by a visible link with those who follow him, and to whom he is to transmit a home. Perhaps his farm has come down to him from his fathers. They have gone to their last home! but he can trace their footsteps over the scenes of his daily labors. The roof which shelters him was reared by those to whom he owes his being. Some interesting domestic tradition is connected with every enclosure. The favorite fruit tree was planted by his father's hand. He sported in boyhood beside the brook which still winds through the meadow. Through the field lies the path to the village school of earlier days. He still hears from the window the voice of the Sabbath bell which called his father to the house of God; and near at hand is the spot where his parents laid down to rest, and where,

when his time has come, he shall be laid by his children. These are the feelings of the owners of the soil. Words cannot paint them—gold cannot buy them; they flow out of the deepest fountains of the heart, they are the life-springs of a fresh, healthy and generous national character.—*Edward Everett.*

For the New England Farmer.

A NEW WIND-MILL.

S. BROWN, Esq.:—Dear Sir,—I send you herewith a letter to me from an old friend, which if you think best you, will please publish in the *Farmer*. I know nothing of the newly-invented wind-mill my friend describes more than you can learn from his communication. He is of quite a scientific turn of mind, and I think it quite probable the invention may prove valuable to the community. F. HOLBROOK.

Brattleboro', August 2, 1854.

MR. HOLBROOK:—Dear Sir,—Knowing the interest which you take in any new invention of merit, particularly, such as directly benefits the agricultural community, I am induced to write you respecting a wind-mill of an entirely new construction. Within the last few years I have noticed many inquiries in the scientific and agricultural papers of this country, respecting wind-mills, stating, that if some ingenious mechanic would invent machinery to be carried by wind, which could be regulated with but little difficulty, and of a permanent, durable construction, not likely to be destroyed by severe gales, he would not only be doing the public a great service, but would most assuredly acquire a fortune thereby. For centuries, the civilized world has been looking for something of this kind. In the retired village of Ellington, Conn., DANIEL HALADAY, a young mechanic, has, after one year's trial, succeeded in producing a wind-mill, or wind-engine, which regulates itself. When terrific gales strike it, the broad wings swing back, presenting only their thin edges to the wind, and when the extra pressure has passed, the fans, of themselves, swing back, presenting their surface to the wind, or such a part of the surface as the pressure will admit of. The mill we have there in operation, has been running since early last spring, proving by a fair trial its utility and capability of regulating itself through severe storms. The wheel is ten feet in diameter, having five foot fans; they will be enlarged as more power is required.

This one draws water from a well 28 feet deep, and 100 feet distant, forcing it to supply a barn, blacksmith's shop, and fish-pond, all of which have been bountifully supplied by it. Repeated trials and their failure in producing a desirable wind-power, has nearly discouraged farmers from attempting its use. I recollect that when a boy, I was tending a four horse-power steam-engine in your village, and for a moment detached the regulator: the movement became immediately so rapid and violent, that, had I not quickly replaced it, the increased speed would have torn it from its foundation. Now, many times there is a pressure in the air, as great as that upon the steam-engine; yet people, to some extent, are trying to use this power with nothing to control it, and the results are violent, irregular, motion, and frequent breaking of machinery. I now see but one objection which can possibly be raised to this power—that is, the wind does not blow constantly. To this I offer the following considerations:

1st. You have a good working power, for one-half the days, and nights also, during the year, and at times a mill will run night and day for two weeks in succession.

2d. This mighty agent, of almost unbounded power, costs nothing—the Creator makes it a free gift to all. Many millions of horse power, go sweeping through the heavens, over every man's farm and work-shop, which the skill of man can now control, using it to pump water for beautifying grounds with ponds and fountains, supplyng houses, watering stock, irrigating land; and if applied to machinery, the extensive farmer will use it to thresh grain, saw wood, cut hay, &c. In using it to supply water, large reservoirs can be built to draw from, in case the mill should be still for a few days. It is very appropriate for irrigating land, making flowers, fruits and grains to grow, where the mullen and sorrel, now scarcely find nourishment, and where now the dismal croak of the frog is heard, the clear music of the scythe and whetstone to ring upon the morning air.

The inventor will soon commence the manufacture of these mills on a large scale, and notify the public by advertising the same in the *New England Farmer*. Very truly, your friend,

New Haven, July 19, 1854. I. B.

REMARKS.—There is scarcely anything which would prove of more substantial service to the farmer, than the means of collecting and distributing water at his pleasure. On many farms large quantities of pure water are collected by drainage, which run idly by, while all the water needed for a large family and a large stock of cattle, sheep and horses, has to be raised by human toil. If a cheap, substantial, and permanent power were devised, all this labor might be given over to the sport of the winds, and thousands of gardens and lawns and fields irrigated, so as to add immensely to the beauty of the landscape, and untold profits to the labor of the husbandman. We earnestly hope that the mill here spoken of, will meet the general wants of the people, and that our friend will let us know more particularly about it.

For the New England Farmer.

BUDDING.

In your paper of to-day, I saw a few remarks on budding. You suggested the propriety of inserting buds two or three weeks earlier than common, and for the two or three years past, I have commenced budding as soon as I ascertained that the bark would peel, inserting a few occasionally, as I found time, as long as it would peel, and I found that many of the early buds failed, while most of the latter lived. Being desirous to know which would do best, early or late budding, I inserted buds in the same stalks with my first budding, two or three weeks after the first budding, and found that the last buds mostly lived; whilst the first, but few survived, though some of

them adhered to the stalks, and healed up and appeared green, and remained stationary through the first and second seasons and the present season have sent out some very feeble shoots, showing that the bark will peel before the buds are old enough to terminate. A SUBSCRIBER.

ATTEND THE FAIRS.

The order of these anniversaries is as follows:

Rockingham County, at Exeter	September 13 and 14.
Grafton County, at Lyme	September 21 and 22.
Sullivan County	Not determined.
Cheshire County, at Keene	September 26 and 27.
Merrimack County, at Fisherville	September 27 and 28.
Hillsboro' County, at Nashua	September 28 and 29.
State, at Keene	October 3 and 6.

Now we have a few words to say in this connection relative to attending these anniversaries. One object of Fairs, and perhaps we may say *the* great object, is to afford an opportunity for all present to witness the product of the farmer's skill and toil—to see what cattle he rears, what grain he produces, what fabrics are manufactured beneath his roofs—that all may learn his method of management and be benefited thereby. The exhibitor himself is not the only one to be profited by presenting his stock, his dairy products and his domestic manufactures. To be sure, competition may arouse his ambition and induce him to make more vigorous efforts. But the real benefit to be gained is by comparing his own with similar articles presented by others.

But I have nothing to present, says one; why need I attend! For the very reason which you would assign for not attending. When you have made up your mind to attend the Fair for the sake of learning, you have already done much—you have "conquered your prejudices." You go with an honest motive. You pass around from yard to yard among the cattle—you examine the horses, the sheep, the swine—you pass through the dairy hall—see the butter and cheese; near by you find an abundance of fruit and of garden vegetables; you cannot pass over the countless articles contributed from the female portion of the farmer's household. You see more than you imagined your little county produced. You find much to admire—much to inspire you with a determination to exert more power and apply yourself more earnestly to your products in future. But as you pass along you behold manifold objects far less deserving than those produced by your own hands; you are satisfied that it is so, and your modesty will not prevent you from declaring it. The next year you too are a competitor, and most likely a successful one. Your whole family are interested in the Fair.

You have reaped a benefit unexpectedly. But this is not all, you make fifty acquaintances, you talk of your common products, you learn new methods of cultivation, you acquire more new thoughts than you before supposed your mind capable of containing, and if you are wise, you will put some of them into practical operation as soon as you have an opportunity. From these you will make new acquisitions, and in time you will gain another benefit, where you anticipated nothing at the beginning.

For these reasons—for the benefits which will arise to yourself and your children—attend your County Fairs; and when a farmer has spent one day in examining the best stock in his own county, and found, as he unquestionably will, better animals than he expected, he has prepared his mind to extend his observations still further. He desires to know if other counties can do as well. The information he has gained at one exhibition will be doubled at a second, and increased in a three-fold ratio at a third or a fourth. It is impossible for a man to go with open eyes, to a County exhibition, away from his own neigborhood, without acquiring new facts, and gaining some information in relation to his daily labors.

The same is true, only in a greater degree, in regard to the State shows. Here he will obtain a sort of summary of the whole, a condensation and review of the subject matter which has been before him.

We would therefore advise farmers to attend all the Fairs in the State, so far as it is possible. Go and make comparisons for your own good and for the common benefit of those who labor with you.

Societies should take pains to send delegates, and have reports published concerning kindred associations, and we hope this fall, as our Fairs are so well arranged, to see delegates sent from every society to every other, and to read from those delegates full reports of what they witnessed at these exhibitions.—*Granite Farmer.*

MACHINERY IN FARMING—ITS ABSOLUTE NECESSITY.

It is not enough that farmers avail themselves of all the advantages which chemistry affords in its application to their art; it is not enough that they learn how to save as much as possible of the manures made on their premises, and the best methods of applying these and also purchased specific manures; it is not enough that they know at what seasons and to what depths their soils should be cultivated. They must perform as many of the operations of farming by machinery, as machinery can be made to perform to advantage.

There is no other way in which agriculture can keep pace in respectability, pleasure and profit, with other arts. Without this expedient it will be outstripped by them, and sink steadily in comparative rank.

By machinery, as we use the word here, we mean all mechanical contrivances which can be substituted for manual labor, and combined with manual labor so as greatly to increase its productiveness.

And the policy which we recommend includes also animal labor, and as a more powerful co-operator with it.

So far as a horse or an ox can be made to do the work of five men, the horse or the ox earns the net product of five men's labor for the employer. If one man cultivates as much corn, and cultivates it well, with one horse, attached to a cultivator, as his neighbor cultivates with ten hoes in the hands of ten men, it is easy to see which of the two is travelling the fastest on the road to wealth.

So in cutting grass, in planting and harvesting grain, in shelling corn, and in various other operations of the farm, machines can do the work for a small per centage of the cost of manual labor.—*M'Makin's Courier.*

For the New England Farmer.

NATIVE ORNAMENTAL TREES.

Knowing as I do, that the editor of the *Farmer* entertains an enthusiastic love of the beautiful throughout the varied manifestations of nature, as well as an active and substantial regard for the useful, possibly a word in favor of some of the many beautiful and noble trees of our native land, as ornamental, and yet useful and necessary, may not be altogether in vain.

Why may not the lofty elm and the towering pine, the stately walnut and the sturdy oak, the pretty maple and symmetrical hemlock, compare favorably with any from a foreign soil? Then there is the ash with its dark foliage, and the poplar with tremulous leaves, the delicately perfumed locust, and others "too numerous to mention."

Dear bought, and brought from far, may better suit the taste of the city gentleman, but the country nobleman, who tills his lands with his own hands, and reaps the reward of his willing toil from the yielding surface of his own soil, will recline at fervid noon with self-satisfaction and complacency, under the over-arching boughs of some stately forest tree which he himself may have planted in his youth.

Go, then, and plant trees that shall yield rich fruits and afford thee grateful shade. I. S.

8th mo., 1854.

Remarks.—We duly appreciate your brief and appropriate hints, and hope every reader will. There are no trees more beautiful than some which you have named. The palm tree itself does not exceed the hemlock in beauty, and in gracefulness the elm cannot be outdone. Our forests are full of trees that are exceedingly pleasant to the eye.

USE AND INFLUENCE OF LIGHT.

Light comes next to air and warmth, in its influence on the vigor and health of both animal and vegetable life. It is true we could live in the dark, but it is not healthy to keep shady, even in a physical point of view.

The rays of the sun have a remarkable influence on the growth as well as the health of animals and vegetables. It is a fact that the men who work in the coal mines of Europe, are subject to peculiar forms of diseases. This can only be accounted for by their living far down in the depths of the earth, away from the vivifying light of day. It has been found that domestic animals will not thrive and grow when kept in a dark place, though ever so well fed and cared for in other respects.

It is a fact well known to medical men, that in crowded cities, the inhabitants of houses on the north side of a street, where all the principal rooms are well lighted, suffer much less from sickness than families living on the other side, all other causes of health and disease being, as far as can be ascertained, exactly the same.

The custom of excluding light from houses by heavy and thick window curtains, now so common, may preserve the furniture, but does not always preserve the health of its inmates. This is especially the case with regard to sleeping-rooms, which should not only be well aired, but during every fair day should have the benefit of all the sunlight which the windows can admit. Who that has ever been a sufferer from dyspepsia, rheumatism, or any other of the lingering diseases of our climate, has not noticed the difference in his feelings on a dark cloudy day, and in the bright, cheering, smiling sunshine!

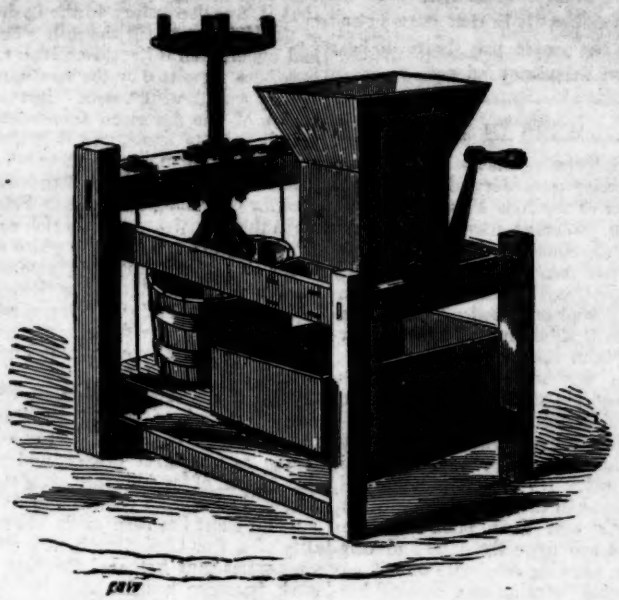
The effects of sunlight are still more apparent upon the vegetable than upon the animal. What a difference there is in the quality of the "pasture ash," so called, and that which grew in the deep shade of the forest, not only in the form of the tree, but in the strength and texture of the wood. This difference must no doubt be owing mostly to the exposure to the winds, difference of soil, &c., but in a great measure to the influence of light.

We often see vegetables stretch upward in order to get at the light, seeming to have a sort of intelligence in regard to its necessity in the process of maturing its flowers and fruit. The scape or stalk of the dandelion, for instance, which supports its flowers, if it grows where there is nothing to shade it, is seldom more than three or four inches long, but among tall weeds, or grass, where shaded, it will sometimes grow to the heigth of two feet in its endeavors to avoid the overshadowing influence of its neighbors, and gain free access to the light. Gardeners sometimes take advantage of this fact, and obtain long stalks of rhubarb early, by placing a barrel with each end knocked out over the spreading leaves. The leaves stretch up towards the light at the top, and thus they get long and tender stalks for early use.

Plants kept in the house always lean towards the nearest window, and we have this summer seen a cornfield adjoining a thick grove of tall trees, where the plants, for some distance from the trees, leaned away from the shade, the plants in the rows nearest to the trees standing at an angle of fifteen degrees from perpendicular, and gradually becoming erect as the distance increased. One reason why light is so essential to healthy vegetation, is undoubtedly this, viz: the decomposition of the carbonic acid in the air, or in other words, the absorption of carbon from the air, one of the most important sources of nourishment to vegetables, can take place only through the agency of light. In the shade, the process goes on very feebly, and in night is wholly suspended.—*Maine Farmer.*

Salt your Chimneys.—In building a chimney, put a quantity of salt in the mortar with which the inner courses of bricks are to be laid. The effect will be that there will never be any accumulation of soot in that chimney. The philosophy is thus stated: the salt in the portion of mortar which is exposed absorbs moisture from the atmosphere every damp day. The soot thus becoming damp, falls down to the fireplace. This appears to be an English discovery. It is used with success in Canada.

To Ruin a Son.—1. Allow him to have his own way.
2. Let him have plenty of money.
3. Let him roam about on Sunday.
4. Let him be disrespectful to his parents.
5. Give him bad companions.
6. Call him to no account for his evenings.
7. Give him no steady employment.



HICKOK'S PATENT IMPROVED CIDER MILL.

The machine is made to run by horse, steam or hand power, and when the apples are ground, a small boy of fourteen years can press the pomace with all ease.

In all former times it was supposed that a large quantity of cider could only be made by using a ponderous machine, that slowly crushed the apples without grinding them fine. They were then made into a massive cheese in straw, and a most severe and long pressure was required to extract a portion of the cider—a considerable quantity being absorbed by the straw and the mass of pomace; and to obtain this unsatisfactory result, the farmer had to take all his hands, and perhaps his six-horse team, and devote a whole day that could have been more profitably employed, to make from six to eight barrels of cider. To obviate the difficulty the farmers have heretofore labored under, this machine has been invented, and the statement of a few facts will prove that it is not only the best machine of the kind in existence, but it is the most profitable that a man can have on his farm. The apples are by this machine grated up into a fine pulp, so that it requires but a comparatively light pressure, and that but a minute or two, to extract all the cider, it being ascertained by practical experiment that one-fourth more juice can be obtained, than by the old process. Besides this, it only requires two hands to grind up and make into cider a larger quantity of apples than can be possibly done on the old fashioned machines. On this press, owing to the compactness of the pomace in the tub, and the complete manner in which it is ground, a pressure of from three to five tons—that can easily be obtained—will produce a more favorable result than fifty tons pressure on the ordinary cider Press, even if the apples were ground as finely as on the improved mill; and if the apples were merely crushed as on the nut machine, it would require a pressure of one hundred tons to produce the result accomplished by this Patent Mill. The following may be adduced as the decided advantages of this mill:

First—It will make more cider than any other press, with a given quantity of apples in a given time, and with much less labor and expense.

Second—It will make cleaner and sweeter cider than any other mill.

Third—You can make the cider as you want it, and when you want it—and in quantities from one gallon to six or ten barrels.

Fourth—With it you can press your currants, cherries, berries, cheese, butter, lard and tallow.

Fifth—With it you can save *one-fourth of your time in making apple-butter.*

Sixth—With its use you can at all times have fresh and sweet cider.

By referring to our advertising columns the reader will learn where these mills may be purchased.

☞ Dr. G. H. Dadd, of Boston, Veterinary Surgeon, author of the *Modern Horse Doctor*, &c., proposes to make a tour through the West.

ern States, in the month of September, for the purpose of making himself acquainted with the diseases of horses and cattle in that section; and at such places as the people may desire to hear him, will lecture on Veterinary Science.

AMERICAN FARMERS IN PALESTINE.

The following interesting statement of a new agricultural enterprise near Jerusalem, is copied from a late number of the *New York Tribune:*

"Two years ago, an effort was made in a new line to ameliorate the condition of the inhabitants of Palestine. Seven Americans, with improved plows and other tools, and American seeds, located upon a piece of land seven miles from Jerusalum, one mile from Bethlehem, and made preparations for farming after the American system.

"Their location was in the valley of Artos, upon the very site of one of the gardens of SOLOMON.

"Their friends in the city were much opposed to their going out there to reside, urging them, if they were determined to try to cultivate the soil, to keep their residence in the city, for fear of the Arabs. This did not suit their plans, and they took up their residence upon the land and commenced operations, plowing deep with one of our best plows, harrowing with an iron toothed harrow, such as was never seen their before, and planting corn, potatoes, beans, peas, oats, barley, wheat, and all sorts of garden vegetables; in short, making a perfect American farm.

"The operations, instead of exciting the jealousy of the Arabs, aroused them to a state of surprise, and the news of what the Americans at Solomon's were doing, and the wonderful tools they were using, and how peaceable and quiet they were, never saying anything about their religion, flew on the wings of the wind, and visitors came to look and wonder, from far and near. The operations of the carpenter and blacksmith were not among the least sources of wonder. The rapid manner in which he heated his iron, and hammered it into just such shape as he desired, was beyond the comprehension of the simple-minded people.

"One day the farm received a visit from twenty-five Sheiks, who inspected all the tools, and the way they were used, and the effect produced, and looked at the growing crops, so much beyond anything they had ever seen produced before, and then turned their heads together to consult upon the wonders they had witnessed. The conclusion was that the people must possess a very superior kind of religion, as that is the standard upon which they base all their estimates of character. They made applications at once for several of their sons to serve as apprentices to learn American farming, and did not even object that they should be taught the principles of American religion; for surely, said they, it must be a good religion, as these are very good people, and God blesses their labor beyond any other in all Palestine.

"It would have been dangerous now for any one to molest the American farmers, since they had all the Sheiks and principal men in the country on their side, and anxious for their success and influence. The Jews, too, began to think it would be better for them to cultivate such a fruitful soil than starve in the city, as many of them have done, and they began to apply for situations as laborers, notwithstanding the priests always taught them that it was derogatory to the national character of the Hebrews to till the soil. Though, if they had undertaken it by themselves, they would not have been permitted by the Arabs, who hunt them as they would wild beasts. But under the protection of the American farmers, the Arabs will permit them to labor, and it is now a matter of serious discussion among those who know of the success of this enterprise, whether the most feasible plan for colonizing the Jews in Palestine is not to make them cultivators of its rich soil.

"Owing to some difficulty which arose in regard to the title of the land, they commenced upon in the Valley of the Artos, the little colony moved last year to the Plains of Sharon, where they have got a permanent location, and the number consists now of ten Americans, male and female, and two Germans.

"One of the number was in our office a few days since, from whom we derived these facts. He speaks in most encouraging terms of the success of the agricultural project, and ultimately, by that means, of an influence upon the inhabitants, that will eventually result in great good.

"This effort has been made through the liberality of a few Christians in this city, and by the same spirit that actuated the first movers in the work, immense benefits may be conferred upon that country. All that is wanted to make it a desirable country for the emigrants of Europe is an increase of the present colony sufficient to form a nucleus or rallying-point, and more extended operations, and a gradual drawing in of the resident population to adopt the same modes of producing the varied and profitable products of the soil.

THE SWALLOWS.

During the week ending the 22d of July, these interesting birds had been gathering in large numbers, and making preparations for their brumal retreat, and on the evening of the 25th, or early morn of the 26th, the great congregation of them, left the locality of our residence for their winter home in the South. On the morning of the 26th, as early as half-past four o'clock, not even one swallow could we see, where hundreds might have been seen at that time for many previous mornings. During the day some dozen visited their old haunts, and about as many were seen for two or three days, when, on the first day of August there was a new influx and they could be counted by scores—the latter, however, remained but a short time, and a few only were seen on the 4th and 5th. We *conjecture* that the second gathering in large numbers was of those coming from far North, perhaps as high up as Hudson's Bay, and pausing here for a day's rest and food.

The chimney swallow and purple Martin are with us still. Last year the Martins left on the 8th of August.

☞ Agriculture, like the leader of Israel, strikes the rock—the waters flow, and the famished people are satisfied.

For the New England Farmer.

THE WHEAT CROP.

Mr. Brown:—I wish to follow your advice in regard to raising wheat, believing with you, that "there is no necessity for the farmer to pay out much cash for flour;" but as I have had no experience in the raising of wheat, I shall be very thankful if you would give me some advice on this subject. I have land that is very clayey, and that which is much lighter, though not sandy; but that on which I should like to try the experiment with wheat is land lying on the river, and is supposed to have been made by the action of the water, as the bank on the opposite side is continually wearing away and forming on this side. The soil is very deep, and sufficiently dry to be worked at any season of the year when our common uplands can be. This land has never been plowed, but still bears quite a good crop of grass, almost as good as English. I wish to turn it over, enrich it and seed it down to grass again. If you will be so kind as to tell me what you think about wheat growing on this land, and give some general, or perhaps I should say, particular directions about it, you would do me, and I presume many of your subscribers, a favor.

Would leached or unleached ashes, with a liberal supply of manure from the barn cellar, be a suitable manure for wheat, (*a.*) When should it be sown,—how much per acre. (*b.*) If the blue stem is the best, where can it be obtained—at what price? It would be convenient to get wheat from a friend in Maine, if it would be advisable to do so. Would thank you to say whether it is well to sow grass seed with wheat,—suppose I ought to know this, but do not. (*c.*)

I am aware it is much easier to ask questions; but I feel that I am speaking to a friend, though personally a stranger. I am much pleased with your paper, not only with the agricultural department, but in regard to the great moral questions of the day. I think it breathes the true spirit, and is doing much good. May you and your paper live to see great improvement in the agricultural, moral and religious world.

Yours most respectfully,

Taunton, July 31, 1854. Subscriber.

Remarks.—As a general rule, any land that is good grass land will answer for wheat, and that would probably be land of granitic formation. It would be well to try a small piece on your new land.

(*a.*) The ashes and the barn-cellar manure will be a suitable dressing, if the manure is not too coarse and green.

(*b.*) Sow the last of this month or early in September. If the land is in high condition, one bushel of seed; if only in ordinary condition, one bushel and a peck. We should prefer seed wheat from Maine, to that raised here.

(*c.*) Grass seed is sometimes sown with wheat and does well, and if we were quite desirous to save the labor of seeding alone, we should risk it, but should prefer to take off the wheat crop, then plow, manure, and seed to grass by itself. A dressing of lime will have a strong tendency to secure a crop, even if it be but six or eight bushels to the acre.

THINK OF ME.

Go where the water glideth gently ever—
Glideth by meadows that the greenest be,—
Go listen to our own beloved river,
And think of me.

Wander in forests, where the small flower layeth
Its fairy gem beside the giant tree;
List to the dim brook pining, while it playeth,
And think of me.

Watch when the sky is silver-pale at even,
And the wind grieveth in the lonely tree,
Go out beneath the solitary heaven,
And think of me.

And when the moon riseth, as she was dreaming,
And treadeth with white feet the lulled sea;
Go, silent as a star beneath her beaming,
And think of me. *Reynolds.*

FEEDING OF ANIMALS---CONTINUED.

Kind and quality of food necessary to maintain a healthy man.—Prison dietaries.—Food required by other animals.—Practical value of the constituents of milk in feeding the growing calf.—Effects of long-continued dairy husbandry upon the quality and produce of the soil.—On the growing of wool, and its effect upon the soil.—Of the practical and theoretical values of different kinds of food.—Relative proportions of food for man yielded by the same herbage in the forms of beef and milk.—Influence of circumstances in modifying the practical values of animal and vegetable food.—Concluding observations.

Practical experience sustains and confirms all the theoretical views, and the deductions, chemical and physiological, which have been advanced in the preceding chapter. To a few of these practical confirmations I shall briefly advert.

KIND AND QUANTITY OF FOOD NECESSARY TO MAINTAIN A HEALTHY MAN.—PRISON DIETARIES.—FOOD REQUIRED BY SHEEP AND CATTLE.

The dietaries of prisons, and their effects on the bodily health and weight of the prisoners, afford one of the simplest methods of testing the influence of kind and quantity upon the nourishing power of food. In such establishments—though open to the objection that the prisoners are in a state of unusual restraint—experiments can be performed so much more accurately, and on so much larger a scale than elsewhere, as to make them worthy of a very considerable amount of confidence.

An inquiry lately made into the comparative health and food of the inmates of the Scotch prisons, has afforded very interesting materials for proving the necessity of a mixed food, and of a certain minimum proportion of that kind of food which is supposed especially to sustain the muscular and other tissues.

In the course of the preceding chapter we have stated:

1. That a healthy man in ordinary circumstances voids daily about half an ounce of nitrogen in his urine alone. To supply this he would require to consume three ounces of dry gluten, albumen, or flesh.

2. That altogether he gives off from the lungs, skin, and kidneys, about 350 grains, or five-sevenths of an ounce, to supply which he must consume about five ounces of the same materials.

But in a state of temporary confinement, when not subjected to hard labor, this quantity may be safely diminished. Yet even here there is a limit

below which it is unsafe to go. In the Scotch prisons the weight of food given to prisoners confined for not more than two months, and not subjected to hard labor, is uniformly about 17 ounces, and the proportion of gluten or nitrogenous food contained in this is about four ounces. Where this proportion is maintained, the average general health and weight of the prisoners improve during their confinement. Where the contrary is the case, the weight diminishes, and the health declines. This is shown in the following tabular view of the kinds and weight of food given in five of the Scotch prisons, and its effects upon the weight of the prisoners:—

JAIL.	FOOD GIVEN.			Per-centage of prisoners who lost weight.
	Nitrogenous.	Carbonaceous.	Total.	
Edinburgh,	4 oz.	13 oz.	17 oz.	18 loss 1½ lb. each.
Glasgow,	4.06	12.58	16.84	32.66 4 "
Aberdeen,	3.98	13.03	17	} 32 4.2 "
Stirling,	4.27	13.4	17.67	
Dundee,	2.75	14	16.75	50 4.35 "

This table shows that, with the Edinburgh dietary and management, 72 per cent. of the prisoners either maintained or increased their weight, while only 18 per cent. diminished in weight, and that only to the small extent of 1½ lbs. each. In Glasgow the result was less favorable, though even there, out of nearly 500 prisoners, only one-third diminished in weight.

The same was the case at Aberdeen and Stirling; so that in these three places the diet may be regarded as, on the whle, sufficient. But in Dundee, one-half of the prisoners (50 per cent.) lost weight during their short confinement; and the cause is obvious, in the diminished proportion of muscle-forming food, which in this case was reduced to 2¾, in place of four ounces.

And it is an interesting fact, as marking the close connection between science and practice, that this deterioration in the quality of the diet was caused by the *substitution of molasses for the milk*, which had been previously distributed to the prisoners along with their porridge of oatmeal. Milk is rich in nitrogenous food, while molasses contains none; and the substitution was immediately followed by a perceptible falling off in the health and weight of the prisoners. So general are the evils which may arise from ignorance or disregard of scientific principles in a single director or directing body. The apparently trivial substitution of molasses for milk brought weakness and want of health on the inmates of an entire prison.

In the feeding of other animals, similar results follow from similar inattention to the requirements of animal nature. Of dry hay it has been found, in practice, that cattle and sheep require for their daily food—

An ox at rest,	2	per cent.	of his live weight
" at work,	2½	"	"
" fatting,	5	"	at first.
" half-fat,	4½	"	"
" when fat,	4	"	"
Milch cow,	3	"	"
Sheep, full-grown	3½	"	"

In the case of the ox the daily waste or loss of muscle and tissue requires that he should consume 20 to 24 ounces of gluten or albumen, which, as may be calculated from the table given in a subsequent section, will be supplied by any of the following weights of vegetable food:—

Meadow hay,	20 lbs.	Turnips	120 lbs.
Clover hay,	16 "	Cabbage,	70 "
Oat straw,	110 "	Wheat or other white grain,	11 "
Pea straw,	15 "	Beans or pease,	6 "
Potatoes,	60 "	Oil-cake,	4 "
Carrots,	70 "		

Or instead of any one of these, a mixture of several may be given, with the best results. But if the due proportion of nitrogenous food be not given, the ox will lose his muscular strength, and will generally fail. So with growing and fatting stock of every kind, the proportion of each of the kinds of food required by the animal must in practice be adjusted to the purpose of which it is fed, as theory indicates, or actual money loss will ensue to the feeder.

PRACTICAL VALUE OF SALINE AND OTHER INGREDIENTS OF MILK IN FEEDING THE GROWING CALF.

In the course of the preceding section I have incidentally remarked, that the substitution of molasses for milk lowered the proportion of nitrogenous food in the Dundee prison diet, and rendered it insufficient for the healthy maintenance of the prisoners. The reason of this appears in the composition of milk, already given in a previous chapter. The consideration of milk as a natural food supplies us with another beautiful practical illustration of our theoretical principles, to which I shall briefly advert; and I do so, not merely because of the light it throws upon the supply of nitrogen which a milk diet is fitted to yield, but because it so clearly illustrates another of the positions laid down in the preceding chapter, that the food must supply, in kind and quantity, all the saline and earthy substances contained in the body.

Milk is a true food. It contains sugar, casein, saline matter, and fat—a portion of each of those classes of substances on which the herbivorus races live in the most healthy manner. But the provision is very beautiful by which the young animal—the muscle and bones of which are rapidly growing—is supplied, not only with a larger proportion of nitrogenous food, but also of bone-earth, than would be necessary to maintain the healthy condition of a full-grown animal of equal size. The milk of the mother is the natural food from which its supplies are drawn. The sugar of the milk supplies the comparatively small quantity of carbon necessary for the respiration of the young animal. As it gets older, the calf or young lamb crops green food for itself, to supply an additional portion. The curd of the milk (*casein*) yields the materials of the growing muscles and of the organic part of the bones; while along with the curd, dissolved in the liquid milk, is the phosphate of lime, of which the earthy part of the bones is to be built up. A glance at the composition of milk will show how copious the supply of all these substances is,—how beautifully the composition of the mother's milk is adapted to the wants of her infant offspring. Cow's milk consists in 1000 parts by weight of about—

Butter,	27
Cheesy matter, (casein,)	45
Milk-sugar,	36
Chloride of potassium, and a little common salt	1½
Phosphate, chiefly of *lime*,	2½
Other saline substances,	6
Water.	882½
	1000

The quality of the milk, and consequently the proportions of the several constituents above men-

tioned, vary, as I have explained in the preceding chapter, with the breed of the cow—with the food on which it is supported—with the time that has elapsed since the period of calving—with its age, its state of health, and with the warmth of the weather;* but in all cases this fluid contains the same substances, though in different quantities and proportions.

Milk of the quality above analysed contains, in every 10 gallons, 4½ lbs. of casein, equal to the formation of 18 lbs. of ordinary muscle,—and 3½ ounces of phosphate of lime, (bone-earth,) equal to the production of 7 ounces of dry bone. But from the casein have to be formed the skin, the hair, the horn, the hoof, &c., as well as the muscle; and in all these is contained also a minute quantity of the bone-earth. A portion of all the ingredients of the milk likewise passes off in the ordinary excretions, and yet every one knows how rapidly young animals thrive, when allowed to consume the whole of the milk which nature has provided as their most suitable nourishment.

* In warm weather the milk contains more butter, in cold cheese and sugar.

Johnston's Ag. Chimistry and Geology.

For the New England Farmer.

ICE HOUSES.

Messrs. Editors:—Sirs,—Having been a subscriber to your valuable paper since its first start, I wish to inquire through you or your numerous contributors the best mode of constructing *ice houses*—such as will keep ice through the season. I have a good winter house, that will keep ice nicely, providing we don't have too many January thaws.

I wish to describe mine, and ask for the defects. It is inside about 8 feet square, and six feet high to the roof, and plastered inside with cement; it is situated about one-half out, the other under a building used as a provision or store room and milk room. The foundation is built of thick stone wall laid in mortar, about three feet high. Then brick two thicknesses outside, then a space of four or five inches, and one thickness bricks inside, the space is filled with sawdust or planing shavings. Thus you will see the wall is about 18 inches thick, the roof and under the building is also double and filled with sawdust. I built this three years ago. The first year I packed my ice in straw; it lasted till June, latter part; second year it lasted till the middle of July, with sawdust thrown over it. This year it failed the 20th inst. So you perceive my ice house is useless, or nearly so.

The first year it was evidently too close; it formed a dampness so that the water stood on the roof and wet the straw and dissolved the ice immediately. Last year I ventilated it, and remedied the fault in a measure, but the principle is not right yet, as the sequel shows. Now I wish through your paper the faults in my building may be pointed out, that I may correct them, or build one that will answer the purpose, as I esteem ice a great luxury these intensely hot days.

Leander B. Hunt.

East Douglass, July 26, 1854.

Remarks.—It is often the fault that *too much* labor and expense are put upon the ice house. Set a building 12 or 18 inches from the ground, with strong sills and sleepers; lay a double floor. Make the outside of the building tight, and line the inside from bottom to plate, and fill with shavings, tan, or sawdust. Then, in an interior house, in the centre, deposit the ice, well packed in shavings or other non-conductors. This interior building should also be lined, if only small quantities of ice are to be kept. Here, then, you have a walk, or passage, all round the ice, affording every convenience for storing or removing it. Much depends upon the amount to be preserved. Where large quantities are together, the inside building, or pen, may be dispensed with. The building should be firmly supported, but not underpinned—let the air have full sweep under it. We shall be glad of suggestions, on this topic, from our correspondents.

For the New England Farmer.

CHEMISTRY AND FARMING.

The remarks of Mr. Johnson, copied in your last number from the *Country Gentleman* on the analysis of soils, expresses the exact truth. We had a statement by a chemist, a member of the Lawrence scientific school a year or two since, that he had examined specimens from the rich Ohio bottoms, and that the soil did not differ in comparison from our N. E. soil. It was only finer. But the farmer sees corn grow on that, ten feet high, while on the low N. E. soil, it will hardly grow at all without manure. Enough of this will make it grow here. Now which shall the sensible man believe, the chemist or the corn? A very small per cent. of phosphoric acid in combination with a very little lime scattered through 300 cubic feet of earth will be found and taken up by the corn. The chemist might utterly fail to detect it. The vital power of the plant forms combinations that the chemist cannot imitate. The different states in which the elements may exist, and their powers upon each other, and the vital powers of the living organic action, are yet little known; but the plant knows it all. Practically, therefore, for the mass of farmers, if not for all, a conclave of cabbage beds, potatoes and corn stalks, can impart more valuable information, if we but learn their language, than all the *Savans* of Europe. We study German to read Liebig, why not some other language to read the cabbage? Mr. Cabbage Head will give him no jaw-breaking terms, but if he remembers what manure he put there, the plump head of the cabbage will be as full of information for him, when compared with its spindle-shanked, verdant-topped neighbor who happened to get no manure, as is the practical, good-sensed farmer compared with his dandy-theoretical neighbor farmer. Two heads are better than one, if one is a cabbage-head, and the two heads should be put together. The learned head of the man of science ready to give the theory, and the cabbage, potato or corn, just as ready to give the practice; and the farmer must add his own to both, if he would succeed. The plant will take what it wants from the soil, and the chemist can analyze that better than the soil itself. But without the name for each ele-

ment, the farmer can shortly tell what manure acts best on each soil, and for each plant. He needs the aid of the chemist though.

Chemists have tried to establish *rules*; they won't work. "General principles," as our venerable lecturer on Theory and Practice used to say, while his form was stretched up full five feet four, and his spectacles mounted up "where the hair ought to grow," "General principles are all you want, and you must apply them to your case, and give your remedies till you make the system respond." And he was right. Rules can have little place in medicine or farming. General principles are the things, and they must be applied to each soil and crop, and the manure and cultivation applied till the soil responds. A quick eye and a well-trained mind will enable one to do this. I. H. NUTTING, M. D.

Orford, N. H., 1854.

BOTS.

In looking over an old number of the *Medical Register*, we noticed an article from the pen of a Mr. GREENE, of this State, on the nature and habits of this insect. Many of the remedies indicated, although they have become quite extensively popularized through the use and recommendations of empyrical pretenders to veterinary skill, and have been generally regarded as both safe and efficacious, appear from the statement of Mr. Greene to be not invariably so. In some instances the bot, even when exposed to their most concentrated and intensified action, remains either wholly unaffected by them, or at most, only slightly injured.

Immersed in rum,	they lived	26 hours.
"	decoction of tobacco,	11 hours.
"	strong elixir of vitriol,	2 hours, 18 minutes.
"	essential oil of mint,	2 hours 5 minutes.
"	volatile spirit,	56 minutes.
"	spirits of turpentine,	45 minutes.

The following articles produced no effect.

Decoction of pink root	10	hours.
Fish oil	10	"
Linseed oil	10	"
Tincture of aloes	10	"
Brine	10	"
Solution of indigo	10	"
Elixir camphor	10	"

The assertion so confidently advanced by many, that mercury is certain destruction to the bot, Mr. Greene, by his experiments, has demonstrated to be wholly untrue. Of three of these insects, two of which were small, and one of mature size, immersed in corrosive sublimate, the first two only were destroyed. Six hours after immersion, the mature, or full-grown insect, was removed from the fluid without exhibiting even the slightest apparent diminution of its normal activity or sprightliness, and, to all appearance unharmed.

From the data furnished by Mr. Greene it appears extremely questionable, whether the application of any remedy, not sufficiently powerful to destroy the life of the horse, is capable of effecting the dislodgment of these insects, when they have once concentrated their attack. According to CLARK and YOUATT, whose investigations on this subject are of great value, the larvæ attach themselves to the stomach by the tentacula of the head, and often puncture or perforate its coats. Horses, however, have died, as was supposed, from bots, in which the coats of this organ have, upon examination, been found perfectly whole, and in an apparently healthy state. When attacked by bots, perhaps the most effectual remedy that can be applied, is a quart of warm sweetened milk, with, immediately after, a powerful dose of physic. The milk will cause them to relax their hold upon the stomach to partake of the liquid, of which they are instinctively fond, and the effect of the physic will tend speedily and effectually to dislodge them. This remedy has proved effectual.

The eggs from which bots are hatched are attached to the fore leg, and taken from thence into the mouth of the animal and swallowed. Now as prevention is better than cure, difficulties occasioned by bots may, in most cases, be prevented, by scraping the eggs from the hair to which they are attached, with a pocket knife. It is easily and quickly done, and in no way dangerous; and where this practice is carefully observed there will be few cases of suffering from bots.

Dr. DADD, in his "Modern Horse Doctor," recommends the following compound for the expulsion of bots.

"Powdered male fern	2	ounces.
" poplar bark	4	"
White mustard seed	2	"
Common salt	6	"
Sulphur	3	"
Powdered aloes	1	ounce.

Mix, divide into 18 powders, and give one, night and morning, in the food. The animal should have a daily allowance of green food if the season permits."

For the New England Farmer.

FARMERS ON POOR LANDS.

FRIEND BROWN:—I was amused with Dr. BROWN'S article in the last number of the *Farmer* on the "advantages of living on poor land." While I regard his views as correct and ingenious, it struck me that there must be very many people in New England the most advantageously situated of any in the universe; and why not? I verily believe it to be the fact.

And again, if the asperous soil of these elder members of the confederation has a direct tendency to burnish the morals of the people, then virtue should shine with a lustre, the reflection of which would extend to the very confines of the continent; and this even may be measurably the case, though the fear is that if the curtains were uplifted, that veils the hidden things of darkness, the vision would be fearful, and virtue would weep bitter tears of lamentation. I believe it to be more creditable to a man to live on poor land and cultivate a rugged soil and increase its production while he causes it to increase in permanent value, than to locate on a more rich and favored soil, and by an indolent and slovenly style of husbandry deteriorate and effectually run out his once rich and virgin soil.

I, too, have heard of farmers at the West getting a living, and perhaps a surplus, by two or three days' labor in a week; in fact, I have heard that some of them do not labor more than that amount of time; and in conjunction with the doctor, it might form an interesting subject for moralists to inquire how a major portion of their time *is* occupied. As to the industry of people from the east acting as leaven among the easy farmers of the West, if I am rightly informed, the leaven generally operates the other way, and nearly the whole become leavened with laziness.

7*th mo.*, 1854. I. S.

PROGRESS AND IMPROVEMENT.

The *Agricultural Press* of America is becoming powerful and popular, and undoubtedly accomplishing a vast amount of good—directly benefiting the people and the country. Its weekly, semi-monthly, and monthly issues, are extensively circulated among the most enterprising and intelligent farmers in all cultivated portions of the Union. Nearly every State and Territory has at least one paper primarily devoted to the Agricultural interest, while from New York, Massachusetts, and Ohio, emanate several agricultural and horticultural journals which circulate generally—a number of them having what may be termed a national sphere and influence, their readers and correspondents extending from Maine to Minnesota, and from Canada to California.

The utility of judiciously conducted periodicals devoted to the promotion of rural interests, is no longer doubted; for the great mass of farmers who formerly ridiculed the idea of "book-farming," so called, have either become convinced of their folly, or sleep with those whose practices were their chief guide—their fathers. Throughout the land, the young and middle aged, and even the venerable men now on the stage of action, very generally concede the necessity and value of the *Agricultural Press*, and cordially lend it substantial support and warm encouragement. Many a farmer who, only a few years since, could not be induced to subscribe for a periodical devoted to his own business, now takes, pays for, and reads from two to ten agricultural papers, and considers the expense a good investment. But the best and most numerous supporters and advocates of rural literature, are the young men—those who have commenced farming for themselves within five or ten years—and it is to this class that, more than any or all others, the *Agricultural Press* is indebted for its elevated position, and present and prospective prosperity. But we designed to speak of the character and influence of Agricultural Journalism, rather than of its supporters. And in these respects, we conceive honor to be due our contemporaries all over the land, for, as a general rule, our journals are able, practical, and high toned. As a whole, though comparatively young in years, the Agricultural Press of America will suffer nothing by comparison with the organs of any oth- other interest or profession—religious, political, literary or scientific. Indeed, we do not believe there is an agricultural paper published in this country, that is not worth far more than its subscription price to any discriminating farmer—and rarely one which would not be both safe and valuable as a family instructor on many important subjects. Their practical and useful character is especially worthy of consideration, and affords a marked contrast with papers devoted principally to political topics and ephemeral reading, and instead of ranking next to political or literary journals, they ought (on the principle that the useful should be preferred to the ornamental, and business precede pleasure,) to take precedence in the estimation of every husbandman.

The mission of the Agricultural journal is to inform, advise and instruct the farmer *and his family*, on essentials of every-day concernment, including questions and practices, the elucidation and discussion of which require experience, observation and good judgment. It should be the medium of communication between the best and most experienced cultivators, observers and investigators, and the great mass of agriculturists. Earnestly aiming to promote the best interests of community, it should ever avoid and expose error and deception in every form. A desire to benefit their fellow men—to enhance improvement, and enrich the people and the country—should be, as we trust it generally is, the paramount object of agricultural editors. With such a purpose, and an energy and zeal commensurate to the work, any and every man connected with the rural Press of the country, can exercise a lasting influence upon the welfare of community. The teachings of such men as Buel, Fessenden, Skinner, Gaylord, Downing, and others, did not cease with their departure from earth—their "good deeds live after them," and will continue to benefit mankind for centuries. May their surviving contemporaries and successors prove equally useful to their fellow men and the country—each striving to excel in promoting the good cause of rural and mental progress and improvement.—*Rural New-Yorker.*

A REMEDY FOR SCARLET FEVER.

The following cure for this malignant disease is given in the *Delaware Republican*, by a physician:—

Messrs. Editors:—You will confer a favor on some of your readers, at least, by publishing this receipt for Scarlet Fever in all its stages, and which will cure nineteen cases out of twenty, if strictly attended to; this treatment, although apparently simple, you will find a sovereign remedy, and will save many of your little ones from a premature grave, which is almost sure to follow the use of calomel, which universally tends to increase the disease instead of curing it. Treatment as follows:—Give a mild carthartic, such as castor oil or some gentle pills, every two or three days, and when there is fever present, sponge the body with weak ley, and give some simple tea to promote a perspiration, such as catnip, sage, balm, &c.; and for the putrid symptoms give good brewer's yeast, mixed with cold water; one table-spoonful of the former to two table-spoonfuls of the latter, for children ten or twelve years old, and younger ones according to age; to be repeated from three to five times a day; and use as a gargle yeast and cream or milk, equal parts, sweetened with honey, and gargle the throat and mouth frequently with it; and if the throat is much swollen, poultice with yeast and pulverized slippery elm; continue the above treatment until

well. I know by many years' experience, that this is the best and most effectual way to cure the scarlet fever. Dr. Wm. Fields.

Wilmington, Del., Dec. 12, 1851.

THE KANSAS EMIGRANT.

BY J. G. WHITTIER.

We cross the prairie as of old
The pilgrims crossed the sea,
To make the West, as they the East,
The homestead of the free.

We go to rear a wall of men
On Freedom's Southern line,
And plant beside the cotton tree
The rugged Northern pine!

We're flowing from our native hills
As our free rivers flow;
The blessing of our mother-land
Is on us as we go.

We go to plant her common schools
On distant prairie swells,
And give the Sabbaths of the wild
The music of her bells.

Up-bearing, like the Ark of old,
The Bible in our van,
We go to test the truth of God
Against the fraud of man.

No pause, nor rest, save where the streams
That feed the Kansas run,
Save where our Pilgrim gonfalon
Shall flout the setting sun!

We'll sweep the prairie as of old
Our fathers swept the sea,
And make the West, as they the East,
The homestead of the free!

For the New England Farmer.

CHESS OR CHEAT.

Mr. Editor:—A word with you about chess, or as *we* Suckers call it, cheat. The scientific hold that chess grows from pure chess seed, and is produced by nothing else; while the mass of farmers, at least in the West, are ready to attest that the growing of the intruder does not depend upon sprouting the pure chess grain or kernel; but that the injured wheat-roots will shoot up a chess stalk. Some believe that herd's grass is liable to such transmutations. Though my faith is small in such violations of nature's laws, I am compelled to say, I have found many facts connected with chess which puzzled me to account for upon any other suggestion.

A neighbor, Mr. Tuttle, broke up a field of the virgin prairie in June, 1850, which, till then, had probably grown rough except wild grass. Last September he sowed wheat on the land, with carefully selected and well cleaned seed. Early the past spring, a flock of 400 sheep broke into the field of green wheat, and made a circuit around a part of the field. In their course they swept the wheat clean to the ground, and now the course of that flock of sheep can be traced by a most luxuriant growth of chess, while it is difficult to find a single head in any other part of the field. In April, 1853, I sowed a field of 14 acres, (which in 1848 produced a fair crop of wheat, with so little chess, if any, that it was not noticed and had since produced corn and no chess that was discovered,) with oats, clover and timothy. Harvested a good crop of oats; in the fall the timothy and clover made a fair show, but now there is an exuberant growth of clover and chess, about half and half, while the timothy is hard to find. Next week I intend to put M'Cormick's reaper into it, and test its value for hay. Some of my neighbors tell me to be of good cheer, that it will all be right next season, that in place of chess, I will have a crop of timothy. Will some one inform me how to avoid a similar result, as I wish to sow another field next spring.

H. W. Merriam.

Little Town, Tazewell Co., Ill., June 8, 1854.

THE LAMPAS.

A correspondent of the New York *Spirit of the Times* inquires as to burning for the Lampas, and whether that is the only cure for it. With the hope that we may perhaps save one horse from the unnecessary and terrible torture of the burning iron, we undertake to reply.

Burning for the Lampas is as good and as humane a remedy, as is suffocation between two feather beds for the hydrophobia;—both have been practised by the ignorant, and both are effectual. The horse, to be sure, survives the infliction, while the feather-bed patient is bound to die. But both of these barbarous remedies (!) have long been discarded by civilized and intelligent men.

We have occasionally had cases of this complaint in our stable; and have always attributed it to over-feeding. But in no single case, however bad, within our knowledge and experience as an amateur V. S., has it resisted a course of bran mashes, continued for a day or two; with the addition, in one or two instances, of a purgative of salts or aloes. (The first thought of our farm hands always was,—to take the animal to the blacksmith's to be burned.)

Youatt says, "The bars occasionally swell, and rise to a level with, and even beyond the edge of, the teeth. They are very sore, and the horse feeds badly on account of the pain he suffers, from the pressure of the food on them. This is called the Lampas. It may arise from inflammation of the gums, propagated to the bars, when the horse is shedding his teeth—and young horses are more subject to it than others—or from some slight febrile tendency in the constitution generally; as when a young horse has lately been taken up from grass; and has been over-fed or not sufficiently exercised. At times, it appears in aged horses; for the progress of growth in the teeth of the horse is continued during the whole life of the animal.

In a majority of cases, the swelling will soon subside without medical treatment, or a few mashes and gentle alteratives will relieve the animal. A few slight incisions across the bars with a lancer, or penknife, will relieve the inflammation and cause the swelling to subside; indeed this scarification of the bars in Lampas will seldom do harm, although it is far from being so necessary as is supposed. The brutal custom of the farrier, who scars and burns down the bars with a red-hot iron, is most objectionable. It is torturing the horse to no purpose, and rendering that part callous, on the delicate sensibility of which all the pleasure and safety of riding and driving depend. It may be prudent, in case of Lampas, to examine the grinders and more particularly, the tushes, in order to ascertain wether either of them is making

its way through the gum. If it is so, two incisions across each other should be made on the tooth, and the horse will experience immediate relief."

In lancing the gum, for a coming tooth, it is much better to nick the gum at the side, rather than upon the edge above the advancing tooth. This is practised with young children, by most physicians. Any one troubled with a tender and swollen instep can comprehend the rationale of this. If he cuts his boot upon the point of pressure, he finds the foot puffing up more and more; but when he makes a few incisions on either side of the boot, near the sole, the pressure ceases and his instep is at once relieved.—*Practical Farmer.*

PASTURE LANDS---DIFFERENT GRASSES.

The months of August and September usually offer opportunities to the farmer to make substantial improvements in his fences, drains, meadows, pastures, clearing fields of stones and brush, and supplying water for all the purposes for which it is desired. But there is nothing among them all that enhances the value of the farm more than a *good pasture.*

Every farmer should be a stock-raiser, so far, at least, as the circumstances under which he exists will admit, as it is only by this means that he can sustain the fertility of his fields, and realize remunerating crops from his arable lands through a succession of years. By consuming the hay and grain of the homestead on the premises, a large quantity of valuable manure will be accumulated, whereas the selling off the products, and their consumption remote from the premises—unless their place be supplied by extraneous matters, will tend directly to impoverish the fields, and render the labors of the husbandman unprofitable and irksome in the extreme.

In the management of pasture grounds great care should be taken to keep down bushes, weeds, and indeed every species of spurious vegetation by which lands devoted to this purpose are so frequently infested and overrun.

The fern and the brake, as well as many perennial plants, find a ready footing and ample aliment in most pasture lands, and should be exterminated at once.

By permitting them to vegetate and spread unmolested, not only are the vegetable resources of the soil essentially diminished, but toleration affords time for a more general dissemination of the pests, and renders the labor of eradication far more onerous and perplexing when it is attempted. Fern may be easily destroyed in the spring when the surface of the soil has just commenced thawing, by means of a heavy hoe formed in the shape of an adze, with a wide sharp bit, and substantial helve. With an instrument of this description an industrious man will go over a large area in a short time, unless the bushes be very dense, and perform the work of extirpation in a manner at once thorough and effectual. Other bushes of a similar description may also be eradicated in the same way.

In stocking down pasture lands, there should be a mixture of seeds, and a most liberal quantity; it is poor policy to sow but one sort. By having a variety of grasses, we secure a much greater amount of fodder than where we sow but one kind. Where sheep and cows, oxen and horses are permitted to run together, this method will be found especially beneficial. We are often surprised by the neglect manifested by some stock-raisers in the management of their pasture lands. No section of the farm should receive more systematic and careful attention. If the ground is low and wet, it should be drained, and the native grasses which are commonly found vegetating with great luxuriance in such soils, and which are nearly worthless, supplanted by more nutritious and valuable kinds.

The improvement of low ground pastures is a matter which has already awakened the attention of some of our farmers, and will in time produce valuable results.

On this subject we find some excellent practical remarks in an Address by A. D. Dickinson, before the Tioga Co. (Pa.) Ag. Society.

"The red clover is the only kind of grass the wheat grower should cultivate, and that is the very kind the grazier does not want except to sow mixed with his blue grass, timothy and red top. All these are slow to start and mature while the clover starts quick and protects not only the soil, but the other grasses until they mature and spread, and run out the clover. But one word on the importance of having all the different kinds of good grasses mixed which grow well on your soil. We all know when any kind is green and fresh, cattle do much better than when ripe and dried up. The kinds I have named come forward in order. Timothy is first and blue grass last to mature, and by having these mixtures you have fresh pasture through the season. One word on the subject of preparing your field for sowing the grass seed. Though ordinarily you have not much trouble in this respect, in this immediate vicinity, there are occasionally some fields or parts of fields which do not catch. The remedy for all this is, on your dry land where your seed would not be so likely to grow, have your soil well prepared early in the spring, and sow it with spring rye. On the first dragging let a man follow the drag with four quarts to the acre, of each kind of seed, timothy, red clover, and red top. Then cross sow it with two quarts each, of white clover and blue grass, rolled in plaster; then drag it all in well. Then put on a good heavy roller; and a failure will never happen if the seed is good. Sow one bushel of plaster to the acre when the rye is a few inches high. This course is only necessary in extreme cases. The reason that rye is better to seed after than any other crops that I have tried is, it grows tall and without leaves, at the bottom, while oats and other spring crops grow thick at the bottom and smother the young grass."

SIGNS OF FOUL WEATHER.

BY THE FAMOUS DR. JENNER.

The hollow winds begin to blow,
The clouds look black, the grass is low;
The soot falls down, the spaniels sleep,
And spiders from their cobwebs peep.
Last night the sun went pale to bed,
The moon in halos hid her head;
The boding shepherd heaves a sigh,
For see, a rainbow spans the sky.
The walls are damp, the ditches smell,
Closed is the pink-eyed pimpernell.
Hark! how the chairs and tables crack,
Old Betty's joints are on the rack:
Her corns with shooting pains torment her,
And to her bed untimely sent her.
Loud quack the ducks, the sea-fowl cry,
The distant hills are looking nigh.
How restless are the sporting swine!
The busy flies disturb the kine.
Low o'er the grass the swallow wings,
The cricket, too, how sharp he sings!
Puss on the hearth, with velvet paws,
Sits wiping o'er her whiskered jaws.
The smoke from chimneys right ascends;
Then spreading, back to earth it bends.
The wind unsteady veers around,
Or settling in the south is found.
Through the clear stream the fishes rise,
And nimbly catch the incautious flies.
The glow-worms numerous, clear, and bright,
Illumed the dewy dell last night.
At dusk the squalid toad was seen,
Like quadrupeds, stalk o'er the green.
The whirling wind the dust obeys,
And in the rapid eddy plays.
The frog has changed his yellow vest,
And in a russet coat is dressed.
The sky is green, the air is still,
The mellow blackbird's voice is shrill.
The dog, so altered in his taste,
Quits mutton bones, on grass to feast.
Behold the rooks, how odd their flight,
They imitate the gliding kite,
And seem precipitate to fall,
As if they felt the piercing ball.
The tender colts on back do lie,
Nor heed the traveller passing by.
In fiery red the sun doth rise,
Then wade through clouds to mount the skies.
'Twill surely rain, I see 't with sorrow,
Our jaunt must be put off to-morrow.

For the New England Farmer.

THE CURRANT.

There are many distinct species as well as numerous varieties of the currant under cultivation; some produce fruit of excellent quality, while others are merely ornamental, and esteemed for the beauty of their foliage and flowers only.—The Missouri, a species with fragrant yellow flowers, is among the most beautiful shrubs.—There are other kinds, of various colors, found in extensive gardens and nurseries, which are worthy of a place in the least collection of shrubbery. Of those which are cultivated for their fruit, there are many kinds, such as the common red and white, and the Dutch of the same color, with a multitude of other species, and their varieties, from which a person may select to suit his fancy.

The black currant is medicinal. A syrup is prepared from the fruit which is useful in affections of the throat and other diseases. Wine, of excellent quality, is made of the juice of the common red, without the addition of alcohol, which is less detrimental than much of the imported wine, and is employed as a restorative in cases of debility. We have, in this immediate vicinity, two native species of the currant, the wild black and the mountain; the last species produces a large red fruit which is not eatable; it is found, as its name indicates, on mountains; the black kind is also met with most frequently on elevated land. The existence of these species, in this region, proves, most conclusively, that the soil and climate are adapted to the growth of this class of fruit, which should encourage us to engage in its cultivation with an assurance of success. Room may be found in a small garden to grow currants for the supply of a family, and they will be found very useful and palatable in various methods of cookery, as well as in the raw state; their cultivation is simple, and they will produce well with ordinary care, and profusely, with high culture and judicious training.

Leominster, 1854. O. V. HILLS.

THE CURRANT CROP IN ZANTE.

Our Zante correspondent, under date of June 21, says:—"The disease of the currant vine has already made great progress. Many think that it will be more severe this year than in previous years, but I believe that this will not be any worse than the last one. As it is, however, it is bad enough. The misery attending such a state of things is of course on the increase.—Our rich land-owners are doing all they can to economize. They deny themselves every comfort, and even what are considered indispensable necessities. They are now selling their equipages as fast as they can get buyers; while the poor people who had, before this calamity, fared as poorly as they well could, have had lately to give up regular meals and feed upon the coarsest materials, whenever and wherever they were to be found. These poor people are now suffering extremely. Our condition, indeed, can scarcely be worse; and yet to a worse state it must come, particularly in the coming winter. What is to become of us I cannot see, unless we turn cannibals and feed upon each other.

A farmer here pretends to have discovered a remedy for this currant disease, and asks the Ionian government to give him $5000 in case his discovery proves a remedy. This is, however, very doubtful, to say the least. This pretended discovery consists in dipping each separate bunch of currants in a mixture of clay and cow's dung moistened with water, and so great is the anxiety of the people here, that they have seized even upon such a forlorn hope as this. Thousands have actually set to work in good earnest to give the experiment a fair trial.—*Boston Traveller.*

REMARKS.—This currant disease, the *American Agriculturist* says, shows the folly—nay, absolute wickedness of people depending upon a single crop for their support. The vine-growers in some parts of Europe are now suffering nearly as much as the currant-growers, on account of the vine disease.—Let them reflect on the horrors of the late Irish famine, in consequence of the peasantry placing their whole dependence on the potato crop. Our

southern planters formerly suffered somewhat in purse, though little in body, on account of devoting too much of their attention to one sole crop—cotton. Now, many have learned better, and raise their own corn and make their own bacon, and occasionally produce other things which enter into the consumption of their families.

HORTICULTURAL OPERATIONS FOR AUGUST.

Nurserymen will now be busy about budding. In large nurseries, and where competent budders are scarce, it is necessary to commence earlier than in smaller nurseries, or where plenty of help can be had when wanted.

Plum Stocks.—The curculio has been so destructive to the plums, that for several years the demand for plum seeds of the finer varieties has been greater than the supply, consequently, many have raised stocks from seeds of the wild plum, or have imported their stocks from Europe.

The seeds of the free growing varieties are suitable for stock, but the wild plum, if used, should be budded or engrafted close to the ground, for most varieties grow vigorously upon it, and will soon outgrow the stock. Plum stocks are the first to be budded, for in dry situations they will stop growing by the last of July or first of August.

Pear Stocks.—In some situations pear stocks continue to grow until the middle of August or first of September, then cease growing for the season. In such situations they should be budded early in August; but in most of the western States they make a second growth; where this is the case, if they are budded early, the buds often start in the autumn and make a growth of from one to six inches, but this wood does not have time to mature before the frosts of winter destroy it. Nurserymen in new locations will notice these facts, and govern themselves accordingly, with regard to the time of budding.

Cherries.—The black Mazzard is the best variety of cherry for stocks. The seeds should be cleansed from the pulp as soon as ripe, and planted immediately, or put away in sand and kept till spring; but it is better to plant them in the fall, for they start early in the spring, and if not planted until they have commenced growing, many of them will be lost. The middle of August is early enough to commence budding cherries.

Pear on Quince Stocks.—With us the quince stocks continue to grow until late in the autumn, but we generally commence budding them simultaneously, or immediately after we have finished budding the pear stocks.

Apple Stocks.—The budding may be commenced upon apple stocks by the middle of August, and in ordinary seasons continued until the middle of September.

Peach Stocks.—These can be left till the first of September, but should be completed in season to have the buds well established before the plants stop growing.

Roses can be budded now.

Examine the different varieties of fruit as your trees come into bearing, to see if they are correct, and what are their merits in your locality.

Strawberries.—Where it is desirable to make new strawberry beds, or to propagate plants for sale, it will be necessary, the beginning of the month, to put the old beds, between the rows, in good condition, that the runners may form strong roots preparatory to being removed to the new beds the last of August or first of September.

Bulbs.—Tulips, Hyacinths, Narcissus, Crocus, &c., can now be taken up and separated and laid aside until the middle of September, when they should be again planted.

Dahlias.—These will now be coming into flower; see that they are well fastened to the stakes in such a manner as to keep them from being blown over, or looking too stiff and unsightly.—*Farmer's Com.*

BATHING.

A daily external application of cold water, has a reviving and invigorating effect but little understood by those who never practiced it. Every class of persons, and especially those who work on the farm through the hot and dusty summer months, should practice daily bathing. The almost continued prespiration causes every particle of dust which touches the body to adhere, and in a short time the pores are obstructed, and the skin covered with dirt. A thorough washing off in cold or tepid water each night, before going to bed, besides keeping the pores open and thus tending to the promotion of health, will dispel those feelings of debility and lassitude so common with many during the sultry months of summer, and infuse a new life into the frame. Some prefer the morning, there is no doubt but a morning bath is highly invigorating, but we think a thorough cleansing of the skin before going to bed, and a change of clean dry clothes to sleep in, of great importance.

Children should be accustomed to frequent bathing from their infancy. It doubtless adds greatly to their health and enjoyment, to say nothing of cleanliness. They will soon learn to consider it a great enjoyment, and perform the operation themselves.

Sir Ashly Cooper was a great believer in the efficacy of bathing. Hear what he say to the ladies about it:

Immediately on retiring from bed, and having all previously ready, take off your night dress, then take up from your earthen pan of two gallons of water, a towel, quite wet, but not dripping, begin at your head, rubbing hair and face and neck and ears well; then wrap yourself behind and before, from neck to chest, your arms and every portion of your body. Remand your towel into the pan, charge it afresh with water, and repeat once all I have mentioned, except the head, unless that be in a heated state, when you may do so, and with great advantage. Three minutes will now have elapsed. Throw your towel into the pan, and then proceed with two coarse long towels to scrub your head and face and body, when four minutes will have you in a glow; then wash and hard rub your feet, brush your hair and complete your toilette, and trust me that this will give new zest to your existence. A mile of walking may be added with advantage.—*Indiana Farmer.*

THE WAR AND THE LINEN TRADE.

Out of a total import of foreign flax, averaging 80,000 tons per annum, Russia furnishes the United Kingdom with 60,000 tons, or two-thirds of the entire quantity; and of the 28,000 tons imported annually into France, about 13,000, or nearly one-half, is derived from the same source. It is not surpising, therefore, that the curtailment and prospective cessation of imports from Russia has materially checked the onward course of the linen trade of the allied nations. Dundee is certainly the most to be pitied, for its manufacture is chiefly of those coarse flaxen fabrics whose low prices will not admit of the substitution of a superior quality of fibre. Of 31,000 tons of flax imported into Dundee in 1854, 25,000 came from Russia, while of 8,400 tons landed in Belfast, but 4,100 were the produce of the czar's dominions; and, further, Belfast had 40,000 tons of Irish flax to select from, of qualities peculiarly suited to the description of fabrics which form the bulk of the Irish manufacture, while Dundee, on the contrary, could avail itself of but a small portion of our crop, the mass of it being too high price, for the kind of goods there made.

Looking beyond the present crisis, our attention is arrested by the facts that the linen manufacture has been outstripping the production of flax, and that spindles and looms have been increasing in a more rapid ratio than fields of this valuable plant. If we refer to the statistics of British and Irish exports, we find that, in 1843, there were shipped from the United Kingdom, in round numbers, 91,000,000, yards of linen, and that the export of 1853 reached nearly 130,000,000 yards; the total value of all kinds of linen and yarn exported in the former year being £3,702,052, and in the latter, £5,910,355. The increase during this decennial period was, therefore, in quantity about 43 per cent., and in value nearly 60 per cent. Of the raw material, the import of 1843 was 78,000 tons, and in 1853, 94,000 tons, or an increase of less than 31 per cent. It is true that the production of flax in Ireland had more than doubled in the interim; but this increase has tended rather to the advantage of certain departments of the British and Irish manufacture, than to that of the trade as a whole.

In fact, what is not merely, under present circumstances, urgently required, but which has for some time been greatly wanted, is a liberal supply of coarse flax. Although other fibrous materials have been largely introduced of late years, and spun upon flax machinery—such as jute, which is now consumed in Dundee to the extent of 16,000 tons annually—yet these, instead of taking the place of coarse flax, have rather opened out new means of consumption, just as the introduction of alapaca has originated a separate branch of trade, without affecting the use of sheep's wool. So that the Dundee manufacturers are as anxiously looking for new sources of supply as the Manchester cotton spinners have lately been doing; and as a curious continuation of the parallel, both point to the same country—our great possession in the East Indies.

It is known that hot climates are not capable of yielding flax fibers of fine quality, as is instanced in the case of Egypt, whose flax is the lowest priced that appears in the British markets. On the other hand, the heat of the sun in these regions is peculiarly favorable to the production of seed.

Flax is already grown in India to considerable extent, but solely for the seed, of which about 100,000 quarters, value £300,000, are shipped annually to the United Kingdom, while the fiber, which would at least be worth half a million sterling, is converted to no use whatever. Surely, with the patent systems of steeping, and the improved method of scutching, lately introduced in Ireland, this valuable product might be brought to a marketable state. In other British colonies—such as those of North America and Australia—the high rate of labor is a serious obstacle to the preparation of flax; but in India it is far cheaper than in Ireland, and therefore no difficulty exists, except the insufficient means of transport from the interior. But the immence seaboard of the peninsula of Hindostan offers an abundant area for the production of flax, which could be readily shipped thence to Europe. We have shown that this question is of more vital consequence to Dundee than to Belfast; but still as we import 4,000 tons of coarse flax every year, it is a matter of some moment to us also, while it would in no way interfere with the home-grown article, which is of a quality much superior to any India could furnish. We are glad to observe, therefore, that our Chamber of Commerce has followed the example of Dundee, and is about to forward a memorial to Government, pointing out the importance, both to the British manufacturer and to the Hindoo ryot, of developing this latent source of profit.

Turning from this topic, we are naturally attracted by another, which the Russian difficulty has also suggested. At the late meeting of the Royal Flax Society, reference was made to the possibility, if not the great probability, of an insufficient supply of foreign flax seed for next year's sowing in Ireland. A greater calamity could scarcely occur to our staple manufacture than a sudden decrease in the area of flax cultivation at home. It is the very foundation of its prosperity, and the trade has increased *pari passu* with the extent of home p oduction of its material. On the other hand, the Ulster farmer would view with dismay an eventuality which would suddenly deprive him of a certain source of profit. Fortunately, if our farmers have sense and foresight, they possess an easy and simple means of providing against such a serious chance. They have nothing more to do than to save as much of the seed of the growing crop as will furnish them with the quantity they require for next spring. And even if by that period the war be terminated, and abundance of Riga flaxseed be available, they will find a ready market at the oil mills for what they have saved. It is of importance also for them to consider whether it may not be advisable to save all the seed of this year's crop by rippling. The same circumstances which have caused a scarcity and dearness of flax fibre have produced a scarcity and dearness of flaxseed. Russia furnishes by far the largest proportion of what is converted, in the oil mills of the United Kingdom, into linseed oil and cake, both of which are so widely consumed. Crushing flaxseed is now 50 per cent. dearer than it was in the summer of last year; and if Irish farmers could not be tempted in former times to make an additional profit of £3 or £4 by saving the seed, perhaps they may

now think better of it when they can make £5 to £6 per acre by so doing.

It is certainly a curious contrast which is presented by the two points we have been discussing. On one side, British India is exporting £300,000 worth of flaxseed, and throwing away £500,000 of fibre; on the other, Ireland is raising to the value of the 2,000,000 of flax fibre, and rotting in the steep-pools £500,000 worth of seed! It is Russia alone that has been benefiting by the ignorance of the Hindoo ryot and the prejudices and carelessness of the Irish farmer. No particle of the valuable plant is allowed by her nobles to waste. She sells us to the value of £3,000,000 of fibre, and £900,000 of seed each year, and does not even take our manufactures in return. The Hindoo burns the fibre, and the Ulsterman rots the seed, which, turned into money, would buy our manufactured goods, and largely help to free us from reliance on a State whose political system must frequently lead to a crisis like the present, and whose commercial policy must ever deprive us of half the benefits of international trade. —*Belfast (England) Mercury.*

For the New England Farmer.

WINTER WHEAT.

Mr. Editor:—The farmers of New England cannot but be gratified—particularly the readers of your paper—that you are an advocate for growing wheat.

Your two last issues contain wholesome and timely advice to farmers. The admonitions of the past year will long be remembered, as connected with the price of a barrel of flour. The pockets of those whose bounden duty it is *to produce the barrel of flour*, in many instances, has been drained to their last pocket-piece. Is there any other way to restore this spent capital, than to move at once under your advice? If our "ancestors crowned their wheat-sheaves with flowers, and sung and danced,"—let us of the present day, weave a garland of flowers for the sheaves, and erect a triumphal arch bearing the inscription,—"Our primitive farmers were wheat growers; *we* will emulate their example in this age of improvement." Finally, your statistics of wheat growing in the Old World, are of much interest; we hope they will not escape the eye of our agriculturists. Cultivation has brought up the wheat crops in England and Ireland; it is but a few years since, that they did not average a larger crop than our Western States, which now altogether do not produce in the aggregate, fifteen bushels to the acre for a series of years. New England would not compound at this rate. There is any quantity of land in New England that will produce as much wheat as in Old England, with the same appliances and mode of cultivation. A plenty of manure—ashes, bone-dust, (as to lime, not as a fertilizer but as a moistener, when under the surface, it may have its fitting effect,) and you are pretty sure of a crop.

Samuel Frothingham, Jr., Esq., of Milton Hill, raised an immense crop of winter wheat. He used freely pig manure turned under greensward. He lost a portion of it from its overgrown weight and succulence, it being bent down in a shower and was too heavy to rise again. I think his yield was fifty bushels to the acre.

My own experience—so often told—and perhaps, so little heeded, I will once more venture to mention. My first year's experience was to plow an old piece of mowing land, 1¼ acres. I sowed three bushels of wheat and harrowed in with it six casks of slaked lime. It yielded forty-seven bushels of wheat. I used no manure, it being simply an experiment. I continued to raise wheat six years; the fourth year it mildewed; my average yield for the whole time was twenty-five bushels to the acre. I doubted the necessity of using lime, and sowed spent ashes on the grain early in spring. Yet I would not oppose the use of lime.

My soil was what may be termed a good grass land, clay substratum; *wet land* will not mature wheat, neither will it winter rye. Dry, descending lands are better for this crop. A pasture, an old mowing field, or a clover crop plowed in, and all the manure you can turn in is all the better; you may lay down to grass at wheat sowing.

During the present season it has occurred to me that "winter-kill" is the great object to guard against. My friend Taber, of Vassalboro', has written me, that this is the discouraging feature in Maine. We know that many farmers are of opinion that if the wheat is sown any time before "snow flies," it is early enough. In October, perhaps, with land cold, no manure, so clayey, that the harrow hardly makes an impression, the grain is scarcely up; the ground closes, and there is hardly a show of blade or root; spring opens, the ground thaws and freezes alternately, and the little furzy grain is all thrown out a perfectly dead substance. Is there not too much of this kind of farming among our Eastern friends? Not so with my worthy friend at Vassalboro'. He takes a high rank.

But "winter-kill" is to be guarded against. I have been trying experiments in my garden; to wit: have planted wheat, (Spring and Winter varieties) 1, 2, 3, 4, 5 and 6 inches deep, exact measure; it may astonish the reader to learn, that it has come up at a depth of six inches, in a light, rich soil. I planted a single berry in a place; the Winter variety at one inch, had seven stalks to the kernel; 2, 3, and 4 inches, six stalks each to the kernel; 5 and 6, three stalks each to the kernel. So that deep planting would require double the seed and would not be safe to adopt.

To test the experiment was my object, and I have planted at three several times; at one planting, it did not come up at six inches.

Now to avoid "winter-kill," *sow early in September, from 1st to 10th;* plow in 3 *inches deep*, if mellow soil 4 *inches*. This gives depth of root, and an advanced blade (which thawing or freezing will not throw out) and amounts to a large gain in early maturing the crop for the next season. Would not this be a fair conclusion?

The early fall growth is of the greatest importance. The horse-plow cannot be used for a better purpose, even if the farmer is in a hurry and thinks it is time lost.

The Michigan or double eagle plow, will so leave the sod furrow as to make it easy to cover three inches deep. A loaded cultivator might be sufficient.

Always plow deep; vegetable roots strike deep.

Many of your farmers have raised wheat in

Massachusetts this year; would they not subserve the public good by publishing their doings? Would it not induce many to "go and do likewise."

The time for sowing is at hand, and he that would avail himself, must be "up and doing." I would recommend to sow two bushels to the acre on lightish soil, and two and a half bushels on heavier soil. Yours respectfully,

Brooklyn, N. Y., Aug. 7th. H. POOR.

REMARKS.—On land in good condition we have never used more than five pecks of seed; six pecks we should consider liberal seeding on a well-manured clay loam. It will be well for the cultivator to make experiments with different quantities of seed, say at the rate of 5, 6, 7 and 8 pecks.

SUBURBAN GARDENS.

The editor of the *Practical Farmer* has been looking into some of the fine gardens in the vicinity of Boston, and among others, describes that of Mr. JOSEPH BRECK, the well-known Seedsman and Florist. What he says of Mr. Breck's "Book of Flowers," is no more than the work justly merits. There is no other work of that description which we think would so fully meet the wants of our people who cultivate flowers for home use, and as pleasant objects about the house. We commend it to all, whether amateurs or not.

MR. JOSEPH BRECK'S GARDEN, BRIGHTON.

Mr. Breck is known throughout the country; wherever flowers are admired and cultivated, there is he an admitted authority—a household friend. His "Book of Flowers" is, without doubt, the most complete and satisfactory work, that we have upon the subject;—it is just the work upon the very subject, that, with a full knowledge of Mr. Breck's character, any one would have prophesied that Mr. Breck could and would write; a work unpretending, exact, quietly enthusiastic and complete; just Joseph Breck "set up" (not in the convivial sense!) in duodecimo form, paged, pressed and bound. It was no common treat to visit his garden, with himself as guide, and speaking of his own flowers as if they were the beautiful creations of God for the general enjoyment;—it was no common treat to sit down at his tea-table, and to partake of his old-style—hearty—open-handed—unapologising hospitality; with his worthy help-meet doing the honors of the evening meal. But we must leave this repast

"——and the cup
That cheers, but not inebriates," * *

to walk forth in the garden.

Mr. Breck's garden contains about 3 acres of land,—a part of which is a new purchase, now undergoing transformation and improvement. The planted portions of the garden were in the finest condition, as to culture and cleanliness; all spoke of active, careful superintendence.

Among the plants especially noticed, most of which were in bloom at the time of our visit, are the following.

Clematis vitacella atro rubra—a much admired climber, with a profusion of brownish red flowers, owing 10 to 15 feet in a season; C. vitacella major—a vigorous climber, like the last, with large purplish blue flowers; C. vitacella plena—also a great climber, with curious double flowers in clusters, of a dark lead or bluish slate color; C. Shillingei, with dark colored flowers; C. Hendersoni, with blue flowers; C. cylindrica, with paler blue flowers; the three last are climbing plants, but not so vigorous as the three first named. Clematis alpina with profuse clusters of white flowers, and Clematis integrifolia, with solitary blue flowers—both tall plants, but not climbers.

In addition to these beautiful varieties of the clematis in bloom, there are in this collection Clematis Sieboldii, C. azurea grandiflora, C. flammula, C. florida, C. florida plena, montana, and other varieties coming later into bloom—all desirable for their beauty, but some of them requiring slight protection in the winter.

The roses were nearly out of bloom, but we saw the remains of about 150 varieties of the finest sorts in the country. To see the roses in perfection, they should be examined during the first week of their bloom. Mr. Breck's stock of hardy herbaceous plants is probably as choice as any other in the country; as it has been his care for the last thirty years to collect from every source this pleasing class of plants. We believe it is conceded by most amateurs, that his seedling Delphinium, No. 1, (*D. Breckii*) is one of the most brilliant and desirable of this tribe. It was raised by him some 10 or 12 years since, from the seed of D. grandiflora, probably crossed with D. sinensis plena. The flowers are double—of the most exquisite ultramarine blue, with a whitish shade in the centre. It grows from 2 to 3 feet high, and is in bloom from June to October, if care is taken to cut off the flower stems, as soon as the first bloom is over. As it does not produce seed, it is propagated from divisions of the root.

Of the Phlox tribe we found about 75 of the best varieties; but few of them were in bloom. Bampanula persicafolia plena, and variety *plena alba*, and other varieties of Campanula were in bloom; also many beautiful varieties of Spirea.

The forcing house for grapes is about 50 feet long; half of the crop has been disposed of, but we noticed the vines near the door heavily laden with fruit. The cold graperies are 85 feet in length, with span roof divided into two apartments. There are four tiers of vines, about 80 in number, in these houses, embracing 18 varieties—about 11 more, says Mr. Breck, than I would recommend to the horticulturist. A small green-house 32 feet long, is attached to the cold-houses.—*Practical Farmer.*

PRINCE ALBERT'S FARM.—Public interest in Prince Albert's agricultual experiments must be considerably cooled by the fact (brought out in Parliment) that they are carried on chiefly at the public expense. It appears that his Royal Highness has two farms, for one of which he pays rent like any other tenant, but has the rare privilege of making what improvements he pleases, one-half at the expense of the public; while of the other farm, a dairy appended to Windsor Castle, the whole charge is thrown on the Civil List. Prince Albert must be a poor agriculturist if he can not work two contiguous farms held on such a tenure to very decided pecuniary advantage.—*North British Mail.*

EXTRACTS AND REPLIES.

GATHERING APPLES.

A correspondent suggests the gathering of apples, now that the price of labor is so high, in a more expeditious manner than usual, by spreading a thick coating of hay under the tree, and shaking them down. This course would prove ruinous to a large number. In falling they would strike the limbs of the tree, and each other when reaching the hay. Too much care cannot be observed in gathering winter fruit to keep it free from even the slightest bruises. If fruit were classified into first, second and third classes, having class one as near perfection as possible, the seller would find a greater profit than he possibly can by mixing the different qualities. Poor apples not only injure the good in their appearance, but actually affect their soundness, and lessen the price of the whole. Properly sorted, the imperfect and unsound fruit may be disposed of early, and the best reserved, until prices have increased.

RECLAIMING MEADOWS.

Dear Sir:—I have a piece of bog land about eight acres in extent, situated within a few rods of my building. One-half has been mowed for twenty-five or thirty years, and the other half is covered with a mixed growth of hard and soft wood. It produces now the most worthless kind of grass. I wish to clear it up, and drain it, and I desire to know your opinion, whether it will probably pay for the labor? (*a.*) There is about three feet natural fall on the land, and by digging, I can get two or three feet more. The muck, in the middle, is from six to ten feet deep, and of a dark brown color; and below this, lies a mixture of blue clay and sand. I have dug in different places and find trees, four feet below the surface, laying as they fell, but in such a state, as to be easily cut with a shovel.

I wish to know, also, the best method to cure corn for winter fodder which has been sown broadcast and in drills. (*b.*)

Yours respectfully, J. U. C.

Warren, Me., 1854.

Remarks.—(*a.*) Certainly, it will pay, and pay well, too, if you manage it judiciously. Do not drain it too deep, or you will leave it a dry, unfertile mass. The water should come within 12 or 18 inches of the surface, but perhaps not to remain there permanently through the summer.

(*b.*) We do not consider corn profitable to be cultivated purposely for fodder. It is exceedingly difficult to cure it (as the sun has lost the intense power it exerts in July,) when the corn is fit to cut. Some persons cut it and spread upon the ground for a day or two, and then tie it in bundles, and place them astride walls, fences, or upon poles erected for that purpose.

RUST ON THE APRICOTS.

Can you tell me the reason why, (and remedy, if there is any,) the rust affects the apricot? Last year, I lost all the fruit on a valuable tree—this year about two-thirds, and there was a great deal of fruit both years. I looked in your valuable paper all last summer, and thus far this, hoping to find something in reference to it, but have seen nothing. If you can give me any information either through the paper or by note, I should be much obliged. I send you a sample of both kinds, good and bad. M. P. N.

Cambridge, Aug. 10, 1854.

Remarks.—The above is from a lady, and we wish it were in our power to suggest a remedy for the blight of which she speaks. A portion of the specimens sent were unusually large and nice, while others were shrivelled and rendered entirely worthless by a thick coat of rust. On our own apricots we have seen nothing of the kind. The apricot tree would not be likely to remain long in a healthy condition standing in heavy wet land; or if the tree lacked any of the elements which the fruit requires, rust may be the consequence. We should recommend a digging about the tree, and thoroughly mingling with the earth a little ashes, bone dust, lime, soap suds, &c., and after the leaves have fallen in October, shorten in the limbs some two to four feet. This last operation is as essential to success with the apricot as with the peach or the plum.

GREAT YIELD OF CUCUMBERS.

From 4 hills of cucumbers I gathered at one cutting, 6 cucumbers which measured, laid in a line, 6 ft. 6 in.; the longest measured 15 inches. One of them was bent down at the stem and into the shape of a holster pistol; my wife took up that one and said "O, here is a gun!" I think this a great crop for one cutting; growing a single cucumber of long length is one thing, but growing them by the dozen is another thing. These were not full-grown cucumbers, but just right to serve on the table. Joel Hapgood.

Shrewsbury, Aug. 4.

The Singing Birds and their Songs.—The last number of *Hovey's Magazine* has a finely written article, with the above title, written by Wilson Flagg, Esq., of Beverly, a gentleman engaged in landscape gardening and laying out grounds. Mr. Flagg seems to possess the nicest appreciation of animated nature, and particularly of that interesting part of it—the Birds. He says it has not been his "good forune" to hear the notes of the rose-breasted grossbeak. We once had the good fortune to secure one which seemed to be bewildered, and flew into the house. It was placed in a large cage and kept for six weeks. It *is* a nocturnal warbler; but it is chary of its notes, and only sung with us when the nights were perfectly still. Then its notes were low, all of the minor key, and extremely touching. If we knew that our readers would enjoy the perusal of this article as we have, we should transfer it, though rather long, to our columns.

For the New England Farmer.

AGRICULTURAL IMPLEMENTS.

We perceive that increasing attention is given to these, and we know of no way in which the operations on the farm can be so readily improved, as by introducing such implements as are best fitted for the purpose.

Already everything has been said about the plow, that it is profitable to say; but about the implements for cutting the grass when grown, a new vein seems to be opening, and a variety of forms putting forth. We had supposed that "Ketchum's Mower" was to occupy the field; but we hear objections made that it requires too much power of draft, and a speed of movement in the team, that cannot long be sustained;—both of which objections, we think, may be readily overcome. The first, by a more complete finish to the machinery,—the second, by giving an increased velocity to the cutter. The principle of the machine seems to be perfect, if these little difficulties can be surmounted; and a perfect knowledge how to use it can be acquired. A want of this is probably the reason why so many have cast it aside. I know a man, who procured one of these mowers, the last year, and tried it half a day, and then laid it by. The same gentleman has taken it out the present season, and tried it thoroughly, cutting more than one hundred tons of hay with it, and now says he would not be without it for $2000. He considers it the best illustration of labor-saving machinery he has ever met—coming into use, just at the season of the year, when labor is most needed. This machine is operated by two horses, cutting when in good order, one acre of grass, in an hour. I have heard of machines fitted to be worked by one horse, simpler in their structure, and less likely to get out of order. When such can be perfected, I think they must come into general use. A gentleman has recently authorized the offer of a premium of *one hundred dollars*, for the best mower fitted for use on our farms, &c. This will appear in the next offer of premiums by the Essex County Society. In the meantime, we hope every manufacturer will send us to the Show at Lawrence, such as they now have, that the farmers may understand what a mower is, and how it operates.

August 9th, 1854.

REMARKS.—We have paid good mowers $2,25 a day this season, and they were offered $3,00 per day for a few days. Now this will not answer for the common farmer; some cheaper mode of cutting his grass must be devised. As our correspondent states, we have no doubt that the true principle of mowing by machinery, has been discovered. The machines, however, like most others in their incipiency, are imperfect; use, and the genius of our inventors and mechanics will soon obviate their present defects. But a machine to be drawn readily by one horse is now the great want of the New England farmer. Most of them keep one horse—only a comparative few, two. If this machine should cut a swarth of only two feet, or even 18 inches, and so constructed as not to be liable to get out of order, it would supply the great present want of our farmers. Our correspondent has done well in calling attention to this important subject, and we trust that a good machine for one horse will be ready before another hay harvest comes.

DESTRUCTION OF BUSHES.

In many places there are grounds which cannot be well plowed, that afford tolerable pasturage. if not too much occupied by bushes. The shrubs which are inclined to grow in these situations, are alders, briars, of several kinds, whortleberry, &c. When these are permitted to grow, they prevent the growth of grass to a great extent, and make that which does grow sour and worthless.

The mode usually adopted for killing bushes in such circumstances, is to mow them. The efficiency of this has been found to depend much on the time of the year in which the work is done. Cutting in winter seems to have little effect towards destroying them; they start with the return of spring, and grow rapidly. The effect is nearly the same if they are cut while the foliage is developing. All trees and shrubs make their annual growth in a few weeks from the time of putting out leaves. During the remainder of the season the wood hardens and the buds of the next season's foliage are set. The juncture when the leaves have attained their full size, and the growth of the season is checked, is sometimes called "turn of the sap." The vitality of many plants is greatly impaired if they are cut off at this time. But with another species, cutting at another period—the last of August, is more fatal.

The black alder usually grows in moist, rich ground, such as is very natural to grass. From their rapidity of growth they soon occupy the ground to the exclusion of other vegetation, and appropriating the best soil to their use, they occasion much loss. Attempts are often made to eradicate them, which do not succeed, and this produces discouragement, which induces the farmer to allow them to grow unmolested. The results of trials at cutting alders at various seasons of the year, have proved that the above mentioned is preferable. We might cite much evidence in support of this, but perhaps what we have already said may induce some one to undertake the work.

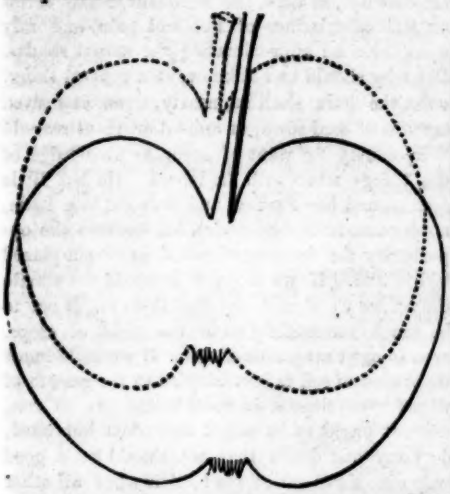
In killing briars and small bushes, *bruising* sometimes answers better than cutting. A tool called a "bush whacker" has been used for this purpose.

Briars and whortleberry bushes may be kept down by sheep, after having been closely cut with a scythe. It is necessary, however, to stock heavily in order to compel the sheep to eat the bushes as soon as they start. If the bushes are closely kept down for a year or two, the grass will spread and form so close a sward, on good land, that the bushes will have little chance to grow. It is important that when the work is begun it be followed up. Once mowing may be partly effectual, but if the sprouts are not cut at the proper time the next season, the labor is in a great degree lost.—*Boston Cultivator.*

THE SUMMER ROSE APPLE.

This apple (*dotted line*) is known not only by the name above, but as Woolman's Early, and Woolman's striped Harvest. Downing pronounces it a very pretty and very excellent apple, highly esteemed as a desert fruit, and describes it as follows:—"Fruit scarcely of medium size, roundish. Skin smooth, rich waxen yellow, streaked and blotched with a little red on the sunny side. Stalk rather short, and slender, calyx closed, set in an even basin. Flesh tender, abounding with sprightly juice. Ripens early in August.

Thomas says it is fine in all localities. Better in quality for the table than Early Harvest, but less productive.



THE EARLY STRAWBERRY APPLE.

This apple (*plain lines*) is the American Red Juneating of Manning. Thomas says it ripens one to three weeks later than the Early Harvest, is productive and good in all localities. Cole says it is a moderate grower and good bearer. Downing says it is a beautiful variety, which is said to have originated in the neighborhood of New York, and appears in the markets there from July to September. Its sprightly flavor, agreeable perfume, and fine appearance, place it among the very finest summer apples.

Fruit roundish, narrowing toward the eye. Skin smooth and fair, finely striped and stained with bright and dark red, on a yellowish white ground. Stalk slender, and an inch and a half long.

The Father of Sanitary Reform.—About eighteen hundred years ago, Plutarch discharged the duties of "commissioner of sewers and public buildings" in his native city of Chæronea. The very fashionable people sneered at the "commissioner," and wondered that a gentleman should stoop to anything so low; the ordinary common sense sort of people thought it odd that a philosopher should degrade himself into a puddle-policeman; while Plutarch's most intimate friends, who seem to have had a good deal of sarcastic humor, delighted to remind him of the remarkably exalted office to which his genius had raised him. On one of these occasions, the honest biographer made a reply worthy to be adopted as the motto of all sanitary reformers. "It is not for myself," said he, "that I do these things, but for my country. The usefulness takes off the disgrace; and the meaner the office I sustain, the greater the compliment I pay to the public."—*The Commonwealth* (*Glasgow newspaper.*)

For the New England Farmer.

ITCH, OR SCAB, IN SHEEP.

There are few diseases, perhaps, more generally or more deservedly dreaded than the "scab." In many sections of the country, where sheep husbandry is pursued on an extensive scale, the losses resulting from its prevalence, in years past, have been immense. It is, indubitably, a contagious disease, and while it is easily propagated by simple contact, is often communicated to animals that have never been brought in collision with those diseased. Like many of the virulent and loathesome diseases which have of late years astonished mankind by their unheralded appearance, and perplexed medical men by their inveteracy, it may well be called "a pestilence which walketh in darkness;" though we are not perhaps warranted in considering it strictly epidemic, though it sometimes seems to be conveyed through the atmosphere, and particularly in those seasons when there is a super-abundance of wet, and which are generally unfavorable to sheep in various other ways. The diagnoses and treatment of this troublesome disease, are thus explained by one whose experience in veterinary practice entitles his opinions and prescriptions in this, as well as in all other matters connected with his profession, to respect:—

"It is discovered by the animal's constantly rubbing or scratching itself, and making at the same time a peculiar motion with the lips. The scabs are sometimes dry and sometimes moist, and spread very rapidly, though the animal continues healthy in other respects, and generally more healthy than before. Afterwards, however, the disorder becomes internal, the sheep becomes emaciated, and dies from weakness and pain. If the scab is observed at an early period, it may easily be cured, or at least prevented from spreading. One of the best remedies is a strong decoction of tobacco to be applied to the diseased parts, after scratching off the scabs with a comb or other instrument.—The decoction of tobacco mixed with lime-water and oil of vitriol, and used constantly for some time, will generally effect a radical cure; another excellent remedy is a decoction of hellebore mixed with vinegar, sulphur, and spirits of turpentine. Internal remedies are of no use except when the disorder has induced other complaints by weakening the general health."

Sheep are no doubt greatly injured, oftentimes, by confinement to low, wet pastures, where they are forced to eat aquatic grasses, and repose on damp and cold ground. It is generally well known that the most favorable regions for sheep

breeding, and those in which it has been most successfully pursued, are those of a hilly, mountainous description, and where little or no aquatic vegetation is produced. High lands, even if dry and arid, are always favorable to this animal.

AGRICULTURAL PROGRESS IN OHIO.

It is with more than ordinary pleasure, that we insert the letter below. First, because it is strong evidence that the great want of the farmer—a systematic education, or, knowledge systematized—is beginning to be properly appreciated, and that through such appreciation, means will be derived to educate him as thoroughly for his pursuit as are the lawyer, physician or clergyman, for theirs. Secondly, because it will show our New England people what those in a sister State are attempting, and they may thus catch the spirit of their Western neighbors. And, thirdly, because by giving publicity to their plans we may, in some degree, promote the noble work in which they have engaged.

The great Art of Agriculture demands more of the heads, as well as the hands, of "Young America." Too many young men forsake it for in-door occupations, vastly more appropriate for the other sex. An advertisement in the morning paper, of a large city, will bring five hundred applications for a clerkship in a counting-room, in a single week, while scarcely a dozen will answer the call for a good gardener, or superintendent of a farm, though the compensation of the latter shall be much the largest. False notions of gentility have put the best hat and boots on the clerk,—and while he shines in his broad-cloth, he too often starves in his garret!

We do not ask that all shall be farmers, but only that those who *do* engage in the profession shall work understandingly—shall not labor through life at cross purposes, by applying to their acres what they already contain in excess, and rob them unto sterility of that which they cannot spare. And so of their plants and animals.

Little hope have we of substantial progress and improvement among ourselves, enshrouded by our own ignorance and indifference—indifference worse than ignorance itself—and the care and toil of the farm. Ignorance begets ignorance, and indifference its like. If a more intimate knowledge of the operations of nature in the springing, growth and perfection of plants and animals, and a higher appreciation of the fitting and beautiful in all the manifestations of Deity about Him, will not give character and tone to the profession, and imbue the farmer with an intense love of the calling, then, indeed, shall we despair. But we fling all fears to the winds on that score. Educate the laborer so that he shall comprehend his work, and the point is gained. He shall find a sort of fascination, even in hoeing potatoes, when he understands how he increases the means of fertilization in so doing; how many millions of mouths he opens about his feet ready to catch the genial nourishment ever ready to drop fatness into them from the surrounding atmosphere. His educated mind shall not prompt him to fling the old bone under the wall as before, but he will hear the famishing plant cry for some element essential to its growth, and to appease it, he will bury the bone within its reach in the mellow earth, and dream of seeing its numerous roots encircling it in joyful embraces!

The farmer delves in the dark, he deals in mysteries, he guesses at results, and hopes his crops will be remunerative, because he "does the best he can." He does not, as does the merchant, make arithmetical calculations of loss and gain, and rely upon them as approximating the actual results. But why should he not know, as a general thing, what the gain shall be, nearly, upon any given amount of seed sown, or animal or plant reared? Why merely for want of accurate knowledge of the things wherewith he labors. He has little system, and has studied and thought but little, not because he had no desire, but because the opportunity for investigation had not been placed before him. If we thought it would not startle the reader we should say that there ought not to be much uncertainty as to the result of crops, even in our changeable climate. If we could know what kind of soil is best adapted to the growth of wheat, what depths its roots would like to run, when it ought to be sowed and when harvested, does any one doubt that we should get a good crop nine times out of ten? And so of all other grains and grasses, and every other department of the farm—the cattle, sheep, swine, horses, poultry, butter, cheese and roots.

Do any believe that this knowledge, so essential, cannot be obtained? That the Creator has involved the primitive employment of man—that upon which he must depend for subsistence, and which underlies and sustains all others—in a labyrinth of difficulties and uncertainties so complicated as to defy the powers of that mind which He, too, gave! No, no, it cannot be so. We only lack the proper instrumentalities. Let these be set at work, and light will soon shine upon the darkness that surrounds us. But we will not keep the reader longer from the letter.

College Hill, Ohio, Aug. 3, 1854.

To the Editor:—It is contemplated to hold a Mass Convention at this place, the site of Farmers' College, and adjacent to Cincinnati, on 13th, 14th and 15th of Sept. next. Measures have been taken to secure attendance from all the "West," and we are encouraged in the belief that, responsive to our invitations, delegates from every section of the Union will be present.

It is proposed to continue the session of the

Convention for three days, as above indicated, in order to afford opportunity for the discussion of various matters connected with the great topics then to be considered, and on the third day to have a mass attendance, and popular addresses delivered by men whose abilities are known, and whose influence and efforts have been directed to the furtherance of this important educational movement. We accordingly address you, soliciting your attendance with us on that occasion. The trustees of Farmers' College, being now about to conclude the contract for the purchase of a Model Farm, adjacent to the institution, to be employed by the Agricultural department, as the experimental laboratory, for the teaching of Agricultural science, in its theory and practice, it is proposed on the occasion of this Convention to dedicate this *Farm*, with appropriate ceremonies, to the uses of *industrial education*, in all the diversified departments of agriculture. We think the occasion will be one of peculiar interest to the scholar—it is already attracting no small measure of public attention, and is eliciting univeral public approval.

Permit us then, though strangers personally, yet not strangers to your reputation, to urge our request inviting your attendance.

Should it be found impracticable for you to favor us with your presence, permit us to ask at your hand, such *written* expressions of your views in reply to this, as your leisure may admit, and allow us the public use thereof, on the occasion referred to. To the end that you may be more thoroughly apprised of the aim and scope of our educational enterprise, and informed of our present condition and future prospects, we have taken the liberty of mailing to your address, a circular, our last annual catalogue, and the Inaugural Address of Prof. ALLEN, delivered at our last Commencement.

Hoping to hear from you favorably at your earliest convenience, I subscribe myself, in behalf of the Board. Most respectfully, &c.

F. G. CARY.

Having thus briefly, and very imperfectly expressed our convictions of the want of means whereby the farmer may obtain a higher order of education than is now common among us, we will suggest a few of the subjects which are still clothed in almost impenetrable darkness.

It will not be necessary here, however, for us to refer, minutely, to the long agitated questions about the time and depth of plowing—the best forms of plows—the time of sowing and harvesting grain, grasses, flax, and other crops—the best modes of increasing and applying manures—the true process of raising the largest amount at the least cost, of our great staple, Indian Corn;—nor to the numerous questions springing from the employment of concentrated fertilizers which still remain untried by the mass of our people, or questions relating to the various breeds of neat cattle, horses, sheep, swine and poultry. These are so prominently before the public mind, and are so essential to the commonest success, that they will not be overlooked by any system of investigation at all worthy of the name.

In passing to another class of subjects, we find that little or no knowledge is possessed upon them. How few of those who have reared a horse or cow, know anything of the physiology of either animal! In cases of sickness or accident, or in supplying their daily amount of food, that science affords them no more instruction than though it did not exist, so far as their own investigations have gone. To them, also, the various soils are all common dirt,—even their names, and the names of the rocks which compose them, are among the hidden things which are altogether past their finding out. Meadows, and springy hills, are wrought upon by one generation after another, in order to avoid an excess of cold water and bring them to fertility, but without advancing one step towards the object desired, and what is worse, ever perpetuating the bad example upon which they practice. The art of draining to them, is as a "lost art," or as useful as a problem in the Timbuctoo tongue.

The same looseness and error which prevail in regard to sowing seeds, if practiced by the merchant in his affairs, would soon bring him to bankruptcy and ruin. Beside the uncertainty as to time and place of sowing, we do not give that precise quantity of seed and the position best calculated to produce the largest return. Thus enormous quantities of seed, altogether, we believe, beyond the common supposition, are annually wasted in overseeding. On this point a real practical cultivator in England, Mr. CLOSE, gives his experience in the papers of the Bath Society. He asserts that he saved full *one thousand dollars each year* in seed, by drilling his grain upon 500 acres of land and then horse-hoeing it, instead of sowing it broadcast, as is our practice. After close and long observation of both modes of sowing, and great practical experience himself, it is his opinion that 8,000,000 bushels of wheat, 3,000,000 bushels of barley, 1,000,000 bushels of rye, 4,000,000 bushels of oats and 1,000,000 of peas and beans are annually thrown away in England, in superfluous seed. Then it is ascertained that seed drilled in and cultivated, *produces* about a *fifth* more than when sown broadcast. This is a loss alone, and is a far greater one than that sustained in the seed itself.

There is, also, a best way of planting, rearing and shaping fruit trees, and of collecting and packing the fruit:—yet the practice is almost as diversified as the cultivators themselves. The consequences of this is, constant change and uncertainty on the whole matter, and of course, great loss. But the cases already presented are sufficient for our present purpose.

On all these the profession needs the results of the most thorough and enlightened experiments with steady and patient investigation. On the sowing of seeds, for instance, it requires a field of several acres, where the various grains shall be

sown side by side, broadcast and in drills, with various quantities of seed in each, and deposited at various depths, and then accurate returns rendered of the cost of labor and seed, and the product of each experiment. In this way such information may be obtained as will settle the questions presented, command the attention and respect of the cultivator, and greatly increase the product of a given amount of investment and labor. Some of the questions which occur to us at present are as follows:—

1. Can the chemist so analyze soils as to tell the farmer, with certainty, what particular element, if any, is lacking in a particular soil, to perfect a crop of wheat, or any other crop he may desire to plant?

2. Can this be done at such a cost as to enable the common farmer to avail himself of its benefits?

3. If the two preceding questions are answered affirmatively, can the chemist state, with confidence, what quantity of lime, or potash, or ammonia, or phosphate, or any thing else, each acre should require for any given crop?

4. What are the benefits of draining and irrigation to lands, and what are the true modes of operation to realize them?

These are questions of the first importance to the agriculturist—indeed, they are so to the world—and are sufficient to show our views of the many points which ought to be settled and established by some competent and high authority. We are aware that these questions are answered in the books—but the books don't agree. They have been written, some of them, by empyrics; some are the garbled extracts of mere collators, and some by those who wish the profession well, but whose zeal ever outstrips their knowledge, and makes them unsafe guides.

There are, also, an hundred questions of lesser magnitude, that demand a solution from high, competent authority—such as,

1. In reclaiming swamp lands, has it been ascertained at what depth from the surface the water should be taken off, in order to produce the most, and the best quality, of English grass?

2. What is dry swamp mud worth, per cord, for agricultural purposes?

3. Where farms are drained, is the old system of transverse ditching the lowest parts of the land still adhered to, or are the true principles of draining applied?

4. Where large quantities of stones have been taken from a field, including those so large as to require blasting, does the land remain equally as fertile as it was before they were removed?

5. What is the most expeditious way of getting rid of large stones, when they are not wanted for building or other purposes?

Then there are numerous questions relating to the feeding of stock, and to the stock itself—in relation to the grass and root crops, to the various fruits, implements, &c., all of which seem to be involved in doubt and uncertainty.

We cannot be present on the interesting occasion mentioned in the letter, and have been able to throw out these crude remarks in the midst of sickness and suffering. We shall send, however, with this, the well-considered plan of a *Model Farm*, furnished by our Associate, Mr. FRENCH, and published in the fourth volume of the monthly *Farmer*.

We have no confidence, however, in the success of this cause in any institution where it is introduced to catch the popular favor and made to take a secondary place. As it underlies and sustains all the other occupations of man—all arts, sciences and trades, so does it all our institutions of learning. Let the national agriculture languish, and all these will suffer with it. But let it be generously sustained—let those engaged in prosecuting it be enlightened in the manifold operations which it requires, and the whole body politic will feel its pulse and power.

DYING SELDOM A VERY PAINFUL PROCESS.

According to my observation, the mere act of dying is seldom in any sense of the word, a very painful process. It is true that some persons die in a state of bodily torture, as in cases of tetanus; that the drunkard, dying of delerium tremens, is haunted by terrific visions; and that the victim of that most terrible of all diseases, hydrophobia, in addition to those peculiar bodily sufferings from which the disease has derived its name, may be in a state of terror from the supposed presence of frightful objects, which are presented to him as realities, even to the last. But these and some other instances which I might adduce, are exceptions to the general rule, which is, that both mental and bodily suffering terminate long before the scene is finally closed. Then, as to the actual fear of death, it seems to me that the Author of our existence, for the most part, gives it to us when it is intended that we should live, and takes it away from us when it is intended that we should die. Those who have been long tormented by bodily pain are generally less anxious to die, as they ever were to live. So it often is with those whose life has been protracted to an extreme old age, beyond the usual period of mortality, even when they labor under no actual disease. It is not very common for any one to die merely of old age. But I have known this to happen; and a happy conclusion it has seemed to be of worldly cares and joys. It was like falling to sleep, never to wake again in this state of existence. Some die retaining all their faculties, and quite aware that their dissolution is at hand. Others offer no signs of recognition of external objects, so that it is impossible for us to form any positive opinion whether they do or do not retain their sensibility; and others again, as I have already stated, who appear to be insensible and unconscious, when carefully watched, are found not to be so in reality, but they die contentedly.—*Psychological Inquiries.*

For the New England Farmer.

LAKE CHAMPLAIN DROUGHT, CROPS, &c.

I have not the honor of being the *oldest inhabitant*, so cannot say what has been, but for 27 years, during which time I have been a resident of this valley, I have never known such a drought as at present. We are literally *dried up*. Streams, large and small, are *very* low; some, on which are mills, have no water except in holes. Since June 10th, only 2.81 inches of rain—1.21 in June, 1.60 in July, and the last only .02 July 29th.—June was 3¼° colder than last year, July 5¼° warmer.

May and June were favorable for grass, of which there has been a great crop, and well secured; oats, wheat and rye, a full average; corn and potatoes, many pieces a total failure; buckwheat, carrots, &c., do. In some towns there have been showers, so there may be half crops. Fruit—apples not one-fourth an average, and very small; pears few; plums, the most hardy plenty, others *very few;* grapes, early ones mildewed, Isabella and other late ones promise well. G.

Burlington, Vt., Aug. 19.

For the New England Farmer.

GRAPE WINE—HEN LICE, &c.

Mr. Editor:—Last spring I took half of a flour barrel and filled it with dirt—took down a branch of a grape vine that grows in my field, and buried it therein, according to the directions laid down in Cole's Fruit Book. And now, after cutting it from the parent vine, what shall I do with it? Shall I plant it this fall, or not until spring, if not until spring, what shall I do with it this fall and winter? (*a.*)

I saw in the *N. E. Farmer*, (to which I am a subscriber) of July 29, a recipe for making *currant* wine, but I have looked in vain as yet, for a recipe to make *grape* wine. Cannot you inform me how to make good wine from our common native grape? (*b.*)

I have noticed in the *Farmer* that different correspondents have told their methods for destroying the curculio, striped bugs, lice on cattle, &c., &c., but no one has ever told how to destroy lice on fowls. In a part of the bay in my barn I keep corn husks in the winter, and in the summer I keep my sleigh and meal barrels, &c. My hens make nests in my sleigh and about in the bay and lay and set and hatch chickens there. The other day I found to my surprise that my sleigh, plow, &c., were covered with myriads of lice. I looked in the henroost, which joins the bay, and found they were there, too. Now if you can inform me through the columns of the *Farmer*, of any method that will destroy such vermin, I shall be very much obliged. I am about building a henery, and how shall I manage to keep it clear from being infested with vermin? (*c.*)

Respectfully yours, Ignoramus.

Wrentham, August, 1854.

Remarks.—(*a.*) Transplant your grape, after the frost has killed the leaves, into the spot where you wish it to remain, see that no standing water can remain about it, and protect it slightly through winter with the boughs of evergreens, or coarse hay or straw.

(*b.*) B. F. Cutter, Esq., of Pelham, N. H., will instruct you how to make wine from the native grape.

(*c.*) Vermin on fowls may be destroyed by slightly greasing or oiling, the top of the head of each fowl, and applying it under the wings. Feed to them an occasional mash of boiled onions and Indian meal; rub the roosts with raw onions. A correspondent in last year's volume of the monthly *Farmer*, says that a feather dipt into spirits of turpentine, and the parts most infested touched with it, will destroy the intruders. The oil, however, will be effectual, if persisted in, as the spiracles or breathing pores of the body become clogged and they cannot breathe.

RECIPE FOR MAKING GRAPE WINE.

Eds. Rural:—For the gratification of your correspondent, "H. B.," of Toledo, and perhaps other readers of your excellent paper, I submit for insertion the following mode of making Grape Wine. It may be affirmed that from the days of Noah down to the present time, good wine, either from the juice of grapes or any other fruit, has been obtained only through the simple process of fermentation. My practice in making wine for the past twenty years, has been as follows:

When the grapes are fully ripe, and have been removed from the vineyard to the place assigned for making the wine, they should be assorted, and all the green and decayed ones removed. Then put them into a barrel, about a bushel at a time, stems and grapes, and pound them thoroughly till all the grapes are mashed. Continue the process till all are finished that you wish to make up at that time. The next process is to press out the juice or must. Then to every gallon add two pounds of sugar, and stir it thoroughly till all the sugar is dissolved. It is then put into barrels for the purpose of fermentation, there to remain, with frequent filling up to supply the waste, till the pomace is all fermented off. A supply of the must should be on hand for that purpose. The barrels should not be bunged up until the fermenting process is about completed. This may be easily ascertained by placing your ear to the bung. If in April or May the wine should be found clear, it may be racked off, but if unsettled it should be left till fall. If the wine is found to be just what you want it at the time of racking, bottle as much as you choose; but if not, let it remain on the lees, and the article will increase in character and strength.

I would remark that all grapes raised in this section of the country, do not contain enough sugar or saccharine matter to make good wine without the addition of sugar. H. N. L.

—*Rural New-Yorker.*

Saving Sweet Potato Vines for Seed.—A. P. Strobel sends to the *Georgia Telegraph* the following:

"Sweet potato vines may be saved during the winter, and used the following spring in propagating a new crop. I have tried the experiment during

this year, to my entire satisfaction. In the fall (any time before frost) the vine may be cut in any convenient length, and placed in layers, on the surface of the earth, to the depth of twelve or eighteen inches, cover the vines whilst damp, with partially rotted straw, (either pine or wheat will answer) to the depth of six inches, and cover the whole with a light soil about four inches deep. In this way the vines will keep during the winter, and in the spring they will put out sprouts as abundantly as the potato itself when bedded. The draws or sprouts can be planted first, and the vine itself can be subsequently cut and used as we generally plant slips. This experiment is worthy the consideration of farmers, as it will save a great many seed potatoes, (particularly on large plantations) which can be used for feeding. Let every farmer, however, make the experiment for himself, and be governed by the result."

SINGULAR CASE OF INSTINCT IN A HORSE.

We do not remember ever to have heard of a more remarkable exhibition of equine intelligence than the one which follows :—

Mr. A. had for a considerable time a span of sprightly little horses, that he had never separated. In the stable, in the field, and the harness, they have always been together. This has caused a strong attachment to grow up between them. A few days ago he went with them out to Lake Minnetooka, on a fishing excursion. Taking them out of the carriage, he led them to the lake and tied them several rods apart on a strip of grass that grew upon the shore, and left them to feed. Returning to the shantee, he threw himself upon the floor, to wait the return of the party who had repaired to the lake to fish.

Not much time had elapsed before the sound of approaching horses' feet attracted his attention, and a moment after, one of his horses appeared at the door. The animal put his head in, and giving one neigh, returned at a slow gallop, yet under evident excitement, to the spot where, but a few moments before, he and his companion had been seemingly safely fastened. Surprised to find his horse loose, and struck with his singular conduct, Mr. A. immediately followed, and found the other lying in the water, entangled in the rope, and struggling to keep his head from being submerged. While Mr. A. proceeded to disengage the unfortunate horse, his noble benefactor stood by, manifesting the utmost solicitude and sympathy, and when his mate was extricated from his situation, and again upon his feet upon terra firma, the generous creature exhibited the most unquestionable signs of satisfaction and joy. That this intelligent animal should have noticed the unfortunate situation of his mate—that he should know where to apply for rescue, and in his efforts should sunder a three-fourths of an inch rope, and finally that he should exhibit so high an appreciation of the event, are curious circumstances to us, and commend themselves to the thoughtful consideration of those who would limit the power of reasoning to the "genus homo."—*St. Anthony's Express.*

HOUSE ANTS.—The best way to get rid of ants is to set a quantity of cracked walnuts or shell-barks on plates, and put them in the closet and place where the ants congregate. They are very fond of these, and will collect on them in myriads. When they have collected on them, make a general *auto-da-fe*, by turning nuts and ants together into the fire, and then replenish the plates with fresh nuts. After they have become so thinned off as to cease collecting on the plates, powder some gum camphor, and put it in the holes and crevices, whereupon the remainder of them will speedily *vamose*. It may help the process of getting them to assemble on the shell-barks to remove all edibles out of their way for the time.

TIMELY PARAGRAPHS.

The following beautiful passage, by Washington Irving, in the "Home Book of the Picturesque," might almost make a day cheerful :

And here let me say a word in favor of those vicissitudes of our climate which are too often made the subject of exclusive repining. If they annoy us occasionally by changes from hot to cold, from wet to dry, they give us one of the beautiful climates in the world. They give us the brilliant sunshine of the south of Europe, with the fresh verdure of the north. They float our summer sky with clouds of gorgeous tints or fleecy whiteness, and send down cooling showers to refresh the panting earth and keep it green. Our seasons are all poetical; the phenomena of our heavens are full of sublimity and beauty.

Winter with us has none of its proverbial gloom. It may have its howling winds, and whirling snow storms; but it has also its long intervals of cloudless sunshine, when the snow-clad earth gives redoubled brightness to the day; when at night the stars beam with intensest lustre, or the moon floods the whole landscape with her most limpid radiance; and then the joyous outbreak of spring, bursting at once into leaf and blossom, redundant with vegetation, and vociferous with life!—and the splendors of our summer—its morning voluptuousness and evening glory—its airy palaces of the sun-gilt clouds piled up in a deep azure sky; and its gusts of tempest of almost tropical grandeur, when the forked lightning and the bellowing thunder volley from the battlements of heaven, and shake the sultry atmosphere—and the sublime melancholy of our autumn, magnificent in its decay, withering down the pomp and pride of a woodland country, yet reflecting back from its yellow forests the golden serenity of the sky, surely we may say in our climate "the heavens declare the glory of God, and the firmament showeth forth his handiwork; day unto day uttereth speech; and night unto night showeth knowledge."

WHO CAN STAND THE HEAT?—The editor of the *Buffalo Democracy*, an experienced iron worker, gives the capacity of different classes of people to endure heat. He has noticed that nearly all the deaths from excessive heat of this summer have been among emigrants. They cannot stand our hot dry summers. He says that in blast furnaces and rolling mills the Irish will endure more hard and hot work than the Americans of Ohio, Virginia and Kentucky, or Indiana. Yet it is of rare occurrence that an American dies of sun-stroke. The English and the Welsh endure hot work about

fire better than any other people. Sweating does not seem to exhaust them as it does a yankee.—They will do hard work in a blast furnace in the most sweltering weather of our summers, better than even the negroes. This is the experience of iron masters in Virginia.

SLEEP.—There is no better description given of the approach of sleep, than that which we find in one of Leigh Hunt's papers in the Indicator:

"It is a delicious movement certainly, that of being well nestled in bed, and feeling that you shall drop gently to sleep. The good is to come, not past; the limbs have been just tired enough to render the remaining in one posture delightful; the labor of the day is done. A gentle failure of the perceptions comes creeping over; the spirit of consciousness disengages itself more, and with slow and hushing degrees, like a mother detaching her hand from that of her sleeping child; the mind seems to have a balmy lid closed over it like the eye; 'tis closing more—'tis closed. The mysterious spirit has gone to take its airy rounds."

ADVERTISING DEPARTMENT.

☞ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

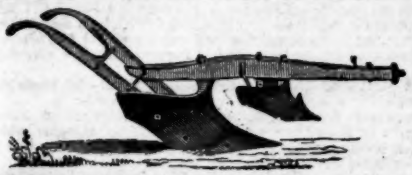
RATES.

For one square 15 lines, one insertion.....$1,00
For each subsequent insertion.....50

☞ The above rates will be charged for all advertisements, whether longer or shorter.

THE BOSTON AND WORCESTER

EAGLE DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in debt of work and relative depth of each plow, the same being regulated to any shade of nicety, with perfect facility:

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop:

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LATE Chief Examiner in the U. S. Patent Office, procures Patents in this and Foreign Countries.

REFERENCES.

The undersigned, Principal and Assistant Examiners in the United States Patent Office, have for several years been well acquainted with Mr. Samuel Cooper, lately a Principal Examiner in this Office, and take pleasure in stating that he is a gentleman of the highest moral character, of unquestioned knowledge in the business and practice of the Office, and that his scientific attainments are such as eminently fit him for the business in which he is about to engage.

HENRY B. RENWICK, L. D. GALE, J. H. LANE, } Principal Examiners.

T. R. PEALE, THOS. H. EVERETT, F. SOUTHGATE SMITH, WM. CHAUNCY LANGDON, } Assistant Examiners.

From long acquaintance and intimate official relations with Mr. Cooper, I fully and heartily concur in the foregoing recommendation made by my late colleagues.

WM. P. N. FITZGERALD,
Late Principal Examiner of Patents.

Dec. 31. tf

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Feb. 18, 1854. tf

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Jan. 28, 1854. tf.

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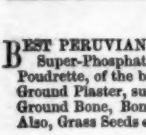

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